

**MODERN**



**LITHOGRAPHY**

DECEMBER • 1940 • VOL. 8 • NO. 12



**Fast Red Toner 207P**

## **Senelith Inks**

were the first lithographic inks  
made from dyestuffs  
treated with sodium tungstate  
for better sunfastness  
and are still leading  
with their outstanding resistance properties

**The Senefelder Company, Inc.**

*"Everything for Lithography"*

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**New York, N. Y.**

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**BEST**  
**WISHES**  
of the  
**SEASON**



**HAROLD M. PITMAN CO.**

LITHOGRAPHIC EQUIPMENT AND SUPPLY DIVISION

# SENEFELDER

## LITHOGRAPHIC SUPPLIES

*Everything to make the job easier* ~



Each month we will briefly describe an outstanding item in the Senefelder group of supplies for the lithographer.

### DEEP ETCH

Why pay royalties or license fees in the form of fancy prices for the use of Deep Etch Materials? The principle of Deep Etch or Offset Deep as it is sometimes called is not the property of any one concern, nor is its application restricted by patent rights to any particular method or technique or to any specific set of materials. Deep Etch is the common property of the entire lithographic industry, the same as offset, and its use is free to everybody.

With the co-operation of a well-known authority on Deep Etch we have worked out a complete line of ready to use Deep Etch Supplies which are guaranteed to be not only chemically pure but also accurately and uniformly mixed. There are no spoiled plates due to inaccurately mixed solutions when Senefelder Deep Etch Supplies are used. Any photo-lithographer acquainted with the principle of Deep Etch or with the Albumen Process can make satisfactory Deep Etch Plates with Senefelder Deep Etch Supplies.

While Senefelder Deep Etch Supplies are used chiefly on zinc plates, the metal generally preferred by offset lithographers, they may also be used on aluminum plates if a special solution is applied for deep-etching the plate as is indicated in the directions.

Senefelder Deep Etch Supplies are accurately standardized and ready for immediate use; they produce perfect deep etch plates suitable for large runs of photo-composed work.

Senefelder Deep Etch Supplies are quicker in their action on the plate; they eliminate black spots and keep longer before use.

Senefelder Deep Etch Coat is free of bubbles and makes a perfect coated plate; it contains no injurious coloring matter, which eliminates the possibility of spots.

Senefelder Deep Etch Supplies are used in leading plants because they are low in cost, simple in operation and dependable under all conditions.

Senefelder Deep Etch Supplies may also be used advantageously with any other dependable Deep Etch technique known in the trade.

## The Senefelder Company, Inc.

*"Everything for Lithography"*

32-34 GREENE ST.

NEW YORK, N. Y.

Absorbent Cotton  
Acids, Litho  
Acid Brushes  
Alum Powder  
Aluminum Plates  
Antifin Rubber  
Preserver  
Asphaltum Liquid  
Asphaltum Powder  
Berlin Paper  
Bronze Powders  
Bronzing Pads  
Carborundum Powder  
Caustic Soda  
Cellulose Cleaning  
Paper  
Charcoal Sticks  
Chemicals, Litho  
China Marbles  
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Crayon Holders  
Crayon Ink

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Crayon Transfer  
Paper  
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Deep Etch Supplies  
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Duralac Lacquer  
Egg Albumen  
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Engrav. Stones  
Etches  
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Film Filters  
Flannel, Litho  
Flint, Graining  
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Fountain Etch  
French Chalk  
Gamburger Slips  
Gelatine Foils  
Glass Marbles  
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Mica Powder  
Moleskin  
Molleton  
Mutton Tallow  
Negative Brushes  
Negative Collodion  
Negative Glass  
Negative Varnish  
Neg-O-Lac  
Nitric Acid  
Offset Blankets  
Offset Inks  
Offset Powder

Opaque  
Palm Oil  
Pens, Litho  
pH Slide Comparators  
Photographic Gelatine  
Platinum Etch Salt  
Plates, Lithographic  
Press Boards  
Printing Inks  
Process Glue  
Process Oil  
Proofing Inks  
Pumice Powder  
Quartz, Graining  
Rolling-up Ink  
Rosin Powder  
Rubber Snake Slips  
Rubbing Stones

Schumacher Slips  
Scotch Hone  
Scotch Slips  
Scotch Tape  
Scraper Leather  
Scraperwood  
Senebumen  
Senelac Varnish  
Sensitizers  
Sharp Etch  
Snake Slips  
Soapstone  
Sponges  
Steel Balls  
Steelclay Marbles  
Stone Cement  
Strecker Salt  
Sulphur Flour  
Tracing Blue  
Tracing Paper  
Transfer Ink  
Transfer Papers  
Transparency  
Solution  
Tusche  
Varnishes  
Wire Brushes  
Zinc Plates  
Etc., Etc.



# MODERN LITHOGRAPHY

LITHOGRAPHED IN THE INTERESTS OF LITHOGRAPHERS EVERYWHERE



## THE COVER

*Vermont Snowscape by Marion Post, from Vol. II of U. S. Camera Annual, 1941, just off the press. For other outstanding examples of American photography, representing a cross-current of the American scene, turn to page 44.*

December, 1940

Volume 8 No. 12

IT WAS JUST ABOUT A YEAR AGO this month that you began to hear about the *Hartford Newsdaily*, the first metropolitan daily newspaper to adopt the offset process. There were gobs of publicity about it. There was a lot of discussion, too, among the members of the great Graphic Arts fraternity. Some said it would be a flop, offset wasn't practical for newspaper production, etc. Others said there was a good possibility of it succeeding. Today the *Hartford Newsdaily* is no more—folded. Why did it fail? What's the story behind it? Is offset impractical for newspaper production? Read what William B. Marsh says in this issue. (Page 18)

SUPPOSE YOU HAD JUST BOUGHT A brand new offset press. Suppose you had spent three days getting it installed and ready to run. Suppose, finally, you got it to running and you stepped back to enjoy that proud moment, like a kid with a new toy. And suppose that your press operator right then and there, before the press had had time to turn over 100 times, carelessly dropped his screwdriver between the blanket and the impression cylinder, causing \$700.00 damage—and you with no money. What would you do? Read what B. L. LeRoi did in "Speaking of Headaches." (Page 30)

SOME LITHO CONCERNS, WE ARE told, hire a salesman, give him some accounts to follow and then forget all about him. While others check with their staff daily. Which do you do? (Page 33)

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## MODERN LITHOGRAPHY

Reg. U. S. Pat. Office

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DECEMBER 1940

5

# Season's Greetings . . .



## *To Our Lithographic Friends Everywhere*

We take this means during this holiday season of expressing our appreciation for the cooperation the National Association of Photo-Lithographers has enjoyed from lithographers and equipment and supply manufacturers during 1940. It has truly been a year of progress and accomplishment, that would have been impossible without their help.

Our association has broadened its scope of activities and enlarged its circle of friends. During the year we completed and published the new Uniform Accounting and Cost System, an achievement of which we can, we think, be rightly proud. That we are not alone in thinking so is proved by the warm and enthusiastic way the System has been received by lithographers everywhere.

We have made progress in many other directions, too. Our 8th annual convention, held last September, was the most successful in the history of the NAPL. We are particularly grateful to our friends in the equipment and supply fields for their support and help in making the 1940 convention such a memorable one.

So, glancing backward, we can say it has been a good year. We hope 1941 will be even better, and in that hope are all our very best wishes to you for A Merry Christmas and A Happy New Year!

*Merle S. Schaff*  
President



**THE NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS**  
1776 Broadway, New York, N. Y.

# SEASON'S GREETINGS



AND BEST WISHES FOR THE COMING YEAR

*from* **Sinclair and Valentine Co.**

MAIN OFFICE AND FACTORY: 611 WEST 125th STREET, NEW YORK, N. Y.

Albany  
Baltimore  
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Boston  
Charlotte  
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Dallas  
Dayton

Havana  
Jacksonville  
Kansas City

Los Angeles  
Manila  
Miami

Nashville  
New Haven  
New Orleans

Philadelphia  
San Francisco  
Seattle

\*\*\*\*\*

# Get Aboard this Christmas Special!



Give MODERN LITHOGRAPHY and THE LITHOGRAPHER'S MANUAL for Christmas.

Get MODERN LITHOGRAPHY and THE LITHOGRAPHER'S MANUAL for Christmas.

Give or get, by all means take advantage of this really outstanding offer for your friends or for yourself or both. By all the horned toads in Russia, this bargain really takes the prize. You get M. L.,

published monthly to keep you up-to-date (and a little bit ahead) on all that is worthwhile in the lithographic industry. You get the MANUAL, completely revised, written by experts, to tell just about all there is (for the present, at least) about selling, management and production. And you get 'em at a money-saving bargain. What more could anyone ask? Look over the plans on the lower right, then fill out the coupon on the lower left.

MODERN LITHOGRAPHY  
254 West 31st St., New York, N. Y.

I would like to take advantage of your combination offer. Please send me the LITHOGRAPHER'S MANUAL and enter my subscription to MODERN LITHOGRAPHY as per the plan checked below. Enclosed is check (or money order) to cover in full. Foreign and Canada add \$1.00 per year for each subscription and \$1.00 for each MANUAL.

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NAME.....

COMPANY.....

ADDRESS.....

CITY.....COUNTRY.....

TYPE OF BUSINESS.....POSITION.....

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\$5.00 Lithographer's Manual  
\$3.00 One year's subscription

Total ~~\$8.00~~  
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## PLAN B

\$5.00 Lithographer's Manual  
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\$ 5.00 Lithographer's Manual  
\$12.00 Four subscriptions

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MODERN LITHOGRAPHY





# SAMSON AND LITHO-PRINT OFFSET ROLLERS

BINGHAM'S SAMSON (VULCANIZED OIL) and LITHO-PRINT OFFSET ROLLERS combine highest quality with peak performance at prices no printer can afford to miss out on. BINGHAM PRICES are EFFICIENCY PRICES because mass production, modern methods and quantity distribution enable BINGHAM to provide MORE FOR LESS. And BINGHAM'S SIXTEEN strategically located PLANTS mean economy, speed and convenience to our customers.

## CHICAGO

ATLANTA	KALAMAZOO
CLEVELAND	KANSAS CITY
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DETROIT	OKLAHOMA CITY
HOUSTON	PITTSBURGH
INDIANAPOLIS	ST. LOUIS
	SPRINGFIELD, OHIO

### Also distributed by

California Ink Co. . . . .	San Francisco
Dry Climate Ink & Roller Co. . . . .	Denver
McKinley Litho Supply Co. . . . .	Cincinnati
Harrigan Roller Co. . . . .	Baltimore
Dorsey Printers Supply Co. . . . .	Memphis

# SAM'L BINGHAM'S SON MFG. CO.

## ***How to keep out of trouble***

*in connection with OFFSET BLANKETS  
and INKING ROLLERS*

The answer, of course, is to use VULCAN Blankets and Rollers.

VULCAN BLANKETS, by actual test, don't swell half as much as ordinary offset blankets; and they're free from embossing, debossing, and stretching.

VULCAN ROLLERS, too, are free from swelling . . . in fact, 100% so . . . because of their wholly synthetic, non-rubber composition. They are entirely unaffected by oils, driers, etc., or by heat or cold.

Most offset printers use one or both of these Vulcan products. Write for particulars.

VULCAN PROOFING CO., 1st Ave. & 58th St., Brooklyn, N. Y.

*Sales Representatives in Principal Cities*

# **VULCAN**

***Offset Blankets and Inking Rollers***

# Noël

F R O M



**THE FUCHS & LANG MFG. COMPANY**

(ESTABLISHED 1870)

DIVISION · GENERAL PRINTING INK CORPORATION

**100 Sixth Avenue, New York**

BOSTON

CHICAGO  
SAN FRANCISCO

CINCINNATI  
FORT WORTH

CLEVELAND  
LOS ANGELES

PHILADELPHIA  
TORONTO, CANADA

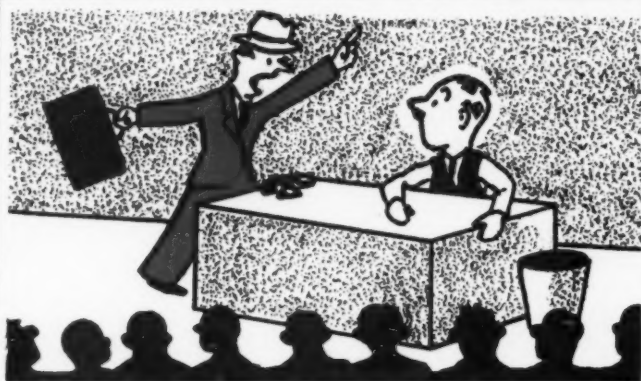
ST. LOUIS

*Ever since the  
stone age*



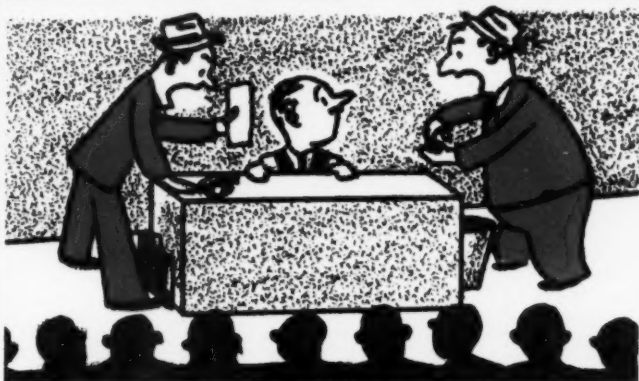
*Everything for  
the Lithographer*





1.

"As production manager for one of the country's fastest growing litho concerns, life used to be a headache for me. Salesmen were always on my neck because their orders were never delivered on the dates promised."



2.

"They used to come in my office and read the riot act regularly. It got to be a serious problem. But what could I do? Our distribution rollers were chipping badly and slowing down production something awful."



3.

"The situation got worse. Finally one day after a particularly heated verbal tilt with those wild Indians from the sales department, from which I was lucky to escape with my scalp, I decided something had to be done. An old-timer in this business gave me the answer. 'Get ROBERTS & PORTER SMOOTH LEATHER DISTRIBUTION and INTERMEDIATE ROLLERS,' he said. 'They never chip and they last for years.' I took his tip."



4.

"Well, sir, the next time those glamour boys from the sales office came in I just sat back easy-like and let 'em go into their song and dance. I didn't say a word. When they'd finished I let 'em have it. 'Listen, you leather-lunged prima donnas,' I said, 'for your stupid, unimaginative information every last one of your blasted orders was delivered over a week ago!' Well, sir, the shock was too great. They sputtered, gasped and fell in a dead faint. It was the truth. Thanks to ROBERTS & PORTER SMOOTH LEATHER DISTRIBUTION and INTERMEDIATE ROLLERS I was able to step up our production efficiency 30 percent and eliminate chipping entirely."

# ROBERTS & PORTER

I N C O R P O R A T E D

New York: 100 Lafayette St. Phone: CANal 6-1646

Chicago: 402 S. Market St. Phone: WABash 6935

CANADIAN AGENT: CANADIAN FINE COLOR CO.

240 LOGAN AVENUE • TORONTO

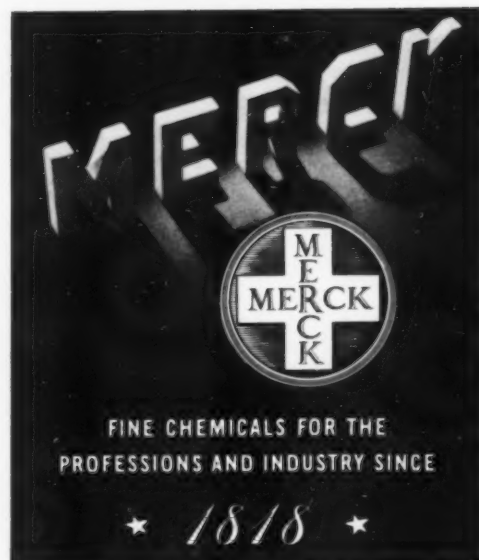
Potassium Iodide Merck • Iodine Merck



**Into every Negative enters  
COPY • CRAFTSMANSHIP  
CHEMICALS**

To produce a finished negative of the better type, you need better copy, better craftsmanship, and better chemicals.

Merck Chemicals for the graphic arts are *better* chemicals — the kind that go a long way toward producing *better* results.



**MERCK & CO. Inc.**

*Manufacturing Chemists*

**RAHWAY, N. J.**

New York: 161 Sixth Ave. • Philadelphia: 1649 N. Broad St. • St. Louis: 4528 S. Broadway • In Canada: Merck & Co. Ltd., Montreal and Toronto

"...they print sharp and clean"

BRETT LITHOGRAPHING CO.  
ESTABLISHED 1844  
*Offset Color Printing*



TEL. IRONSIDES 6-9020-1-2-3  
47-07 PIERSON PLACE  
LONG ISLAND CITY, N.Y.

September 19, 1940

Mr. E. J. Nelson  
The Aluminum Company of America  
230 Park Avenue  
New York, New York

Dear Sir:

In reply to your inquiry as to why I like aluminum plates,  
I wish to say that I prefer them because they print very sharp and  
clean.

This enables us to use a much finer grain on the plate  
and, therefore, we can print a very fine screen.

I feel that the aluminum plate is partly responsible for  
our being able to successfully run 250-line screen work.

Yours very truly,

*Theodore Makarius*  
Theodore Makarius  
Press Superintendent

TN/BB

ALL CONTRACTS ARE TAKEN SUBJECT TO STRIKES, FIRES AND CAUSES BEYOND OUR CONTROL

Aluminum Lithographic Plates are being used successfully  
on all types of work. Jobbers carry them in stock. Aluminum  
Company of America, 2116 Gulf Building, Pittsburgh, Pa.

ALCOA · ALUMINUM  
LITHOGRAPHIC PLATES







Wishing You



A Merry Christmas and a Peaceful  
and Prosperous New Year!

## GODFREY ROLLER COMPANY

*Sole Manufacturing Agents*



211-217 No. Camac St.  
Philadelphia, Pa.

WILLIAM P. SQUIBB, President

Roller makers for 75 years Lithographic — composition  
— newspaper — varnish — lacquering — every kind of  
good roller required for good printing and lithographing.

## RELIABLE LITHOGRAPHIC PLATE CO., Inc.

*The Pioneer Plate Grainers of America*

ALL PLATES  
INCLUDING THOSE  
REGRAINED FOR  
MULTILITH  
ARE MARBLE  
GRAINED

**“R**ELIABLE” is far more than just  
part of our name. It means  
to our customers that our plates can  
be depended on to give first-class re-  
sults because from start to finish the  
graining is handled by experts of  
long experience. Our plates are  
made right to work right—they are  
*reliable!*

We carry a full supply of Zinc and  
Aluminum Sheets for Offset, Rota-  
print Presses, in fact for all the  
lithograph trade.

MILL  
SELECTED  
METAL  
USED  
EXCLUSIVELY  
(MADE IN U.S.A.)

*A trial order should “sell” you our services and products.*

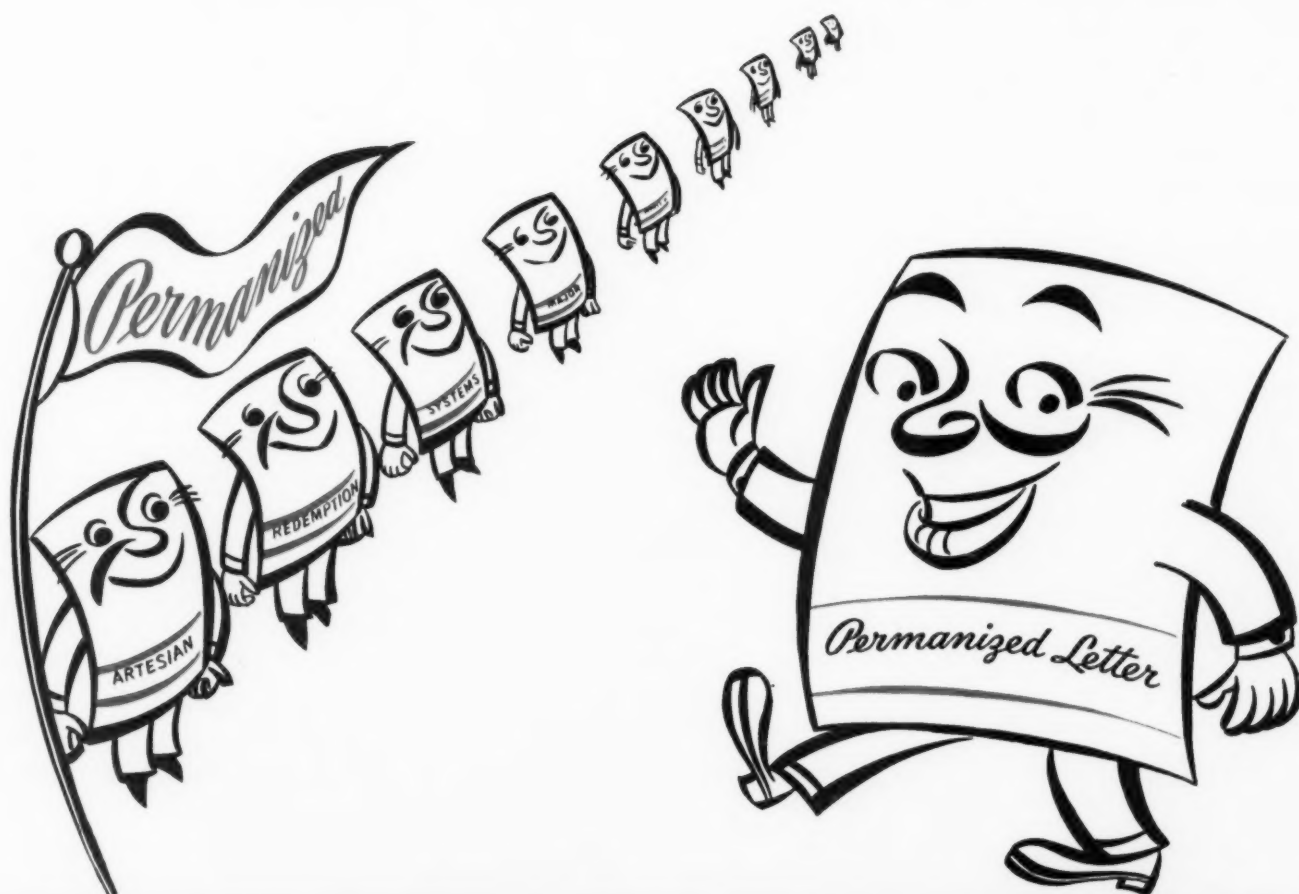
## RELIABLE LITHOGRAPHIC PLATE CO., Inc.

INCORPORATED 1916

17-27 Vandewater St. and 45 Rose St., New York, N. Y. • Phone: BEekman 3-4542  
3-4531



# STEPPING OFF ON THE RIGHT FOOT



## *Permanized Letter* RAG CONTENT

We proudly introduce the newest member of the famous family of *Permanized Papers*. While a true member of the family and possessing all of the fine character expected of one of such fine heritage, *Permanized Letter* is really the soft-spoken brother of the group. It has been developed to fill the need for a letterhead and brochure paper of real distinction, and is available in wove and laid in either white or ivory in substances 20, 24 and 28.

ASK YOUR PERMANIZED DISTRIBUTOR FOR THE INTRODUCTORY PORTFOLIO

**WHITING-PLOVER  
PAPER COMPANY**

● NOTE: The White *Permanized Letter* is brilliant beyond description.

**STEVENS POINT, WISCONSIN  
NEW YORK OFFICE: 71 MURRAY ST.**

"This is advertisement No. 5 of the series appearing in many trade papers to further the cause of *Permanized Papers*."

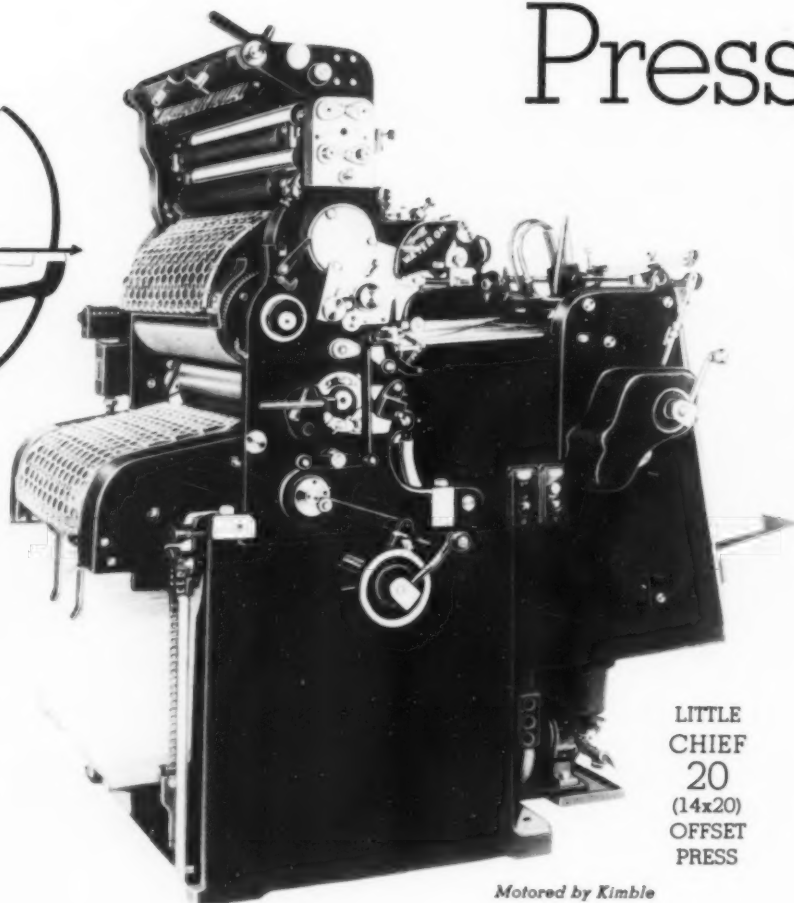
# ATF presents

## a NEW 14x20 ➡ Offset Press

### The ATF-Webendorfer LITTLE CHIEF 20

is a *real* offset press that will enable you to handle long or short runs of quality color and black and white work profitably. Its economical size is just right for the thousands of small printed jobs business uses every day that are unprofitable for larger equipment to reproduce. The Little Chief 20 may be equipped with plate clamp for either punched or regular style plates... for standard size metal or thin metal plates in general use. In addition, you get the extra coverage and printing quality of a *real* offset press... at the same low cost of an ordinary duplicating machine.

For Letterpress or Offset... Ask ATF! You should get the complete facts on Offset. The simplicity of this modern process with efficient ATF equipment, and how profitably it will fit your letterpress equipment, can be convincingly demonstrated. See it at your nearest ATF Branch or Dealer. There is no obligation except to learn how offset may help you get more business... and more profit from *both* letterpress and offset.



LITTLE  
CHIEF  
20  
(14x20)  
OFFSET  
PRESS

Motored by Kimble

#### SPECIFICATIONS

Largest Sheet.....14x20 in.  
Smallest Sheet.....8x10 in.  
Printing Area.....13½x19 in.  
Plate Size.....15½x20½x.012 in.  
Blanket Size.....16½x20x.065 in.  
Cut of Plate Cylinder......010 in.  
Cut of Blanket Cylinder......070 in.  
Lightest Stock.....Onionskin  
Heaviest Stock......018 in.—4-ply

Feeder Capacity.....18 in.  
Delivery Capacity.....13½ in.  
Ink Distribution Rollers.....11  
Water Distribution Rollers.....5  
Speed.....Up to 5000  
Floor Space.....41x57½ in.  
Drive Motor Horsepower.....½  
Pump Motor Horsepower.....½  
Net Weight.....1700 lbs.

*Be sure to see this modern Business-getter at your nearest ATF Branch Office or your Dealer TODAY!*



OFFSET DIVISION • AMERICAN TYPE FOUNDERS, 200 ELMORA AVENUE, ELIZABETH, NEW JERSEY • BRANCHES AND DEALERS IN PRINCIPAL CITIES

# EDITORIALS

ANYONE at all connected with advertising must have read with a great deal of interest of the plan announced earlier this month by the National Association of Manufacturers under which Dr. Ralph W. Robey, assistant professor of banking at Columbia University, will make a study of hundreds of textbooks on civics, history, economics and sociology now being used in the public schools. That public school textbooks in many instances have not always accurately evaluated the place of advertising or the principles of free enterprise in the 'American Way' has long been recognized by many a parent in business. "Why some of the things they tell these youngsters at school . . ." has been the beginning of many perorations we have listened to many times from astonished and indignant fathers in business. "Why just the other day Johnny came home and said that advertising was a parasitic infection, a willful waste . . ." etc., etc.

It isn't that business or advertising has been free from fault, Lord knows. It hasn't. And it isn't that advertising can't take criticism. It can and it has, the Lord knows that. It's just that advertising and business want the truth and the whole truth to be told. In the words of H. W. Prentis, Jr., president of the N. A. M.: "In sponsoring this plan there is no thought of dictating what textbooks should be used in the schools, but merely to request that if collectivistic doctrines are taught . . . the truth about these doctrines should be taught, and that, simultaneously, adequate instruction be provided in respect to the basic principles on which our American republic was founded."

Abstracts will be made of the textbooks studied and these will be made available so that, "if, in the judgment of an individual citizen, a textbook seems to advocate principles contrary to those that characterize the American republic, he can read the textbook himself and, if he sees fit, discuss it with the proper authorities."

Certainly that's fair enough. And anyone who calls this plan meddlesome—and there will be—should be likened to the pot calling the kettle black.



ALREADY, we see effects of the expansion impetus given to industry and trade by the rearmament program. And it all reminds us too much of conditions during the last war and during the early boom days of 1928-29. We cannot seem to get those visions of the former lamented "silk shirt era" out of our mind. Industry has been given a shot of cocaine, and more shots are to come. But what happens when all the shots are over? What happened before? We wish that we could forget those previous hangovers, but we just can't.

Only last week, we had two reports from cities adjacent to steel mills that it was becoming impossible to get workers at anything like a sensible wage,—that the mills were taking them away from other industries,—that gas station attendants in one town, for example, had quit just about en masse to work in the mills, and that wages for such attendants as could be obtained were more than double their previous level.

Now, it will not be long before the sale of electric refrigerators, washing machines, automobiles, and a hundred and one luxuries will be booming along a la 1928-29. Installment businesses will flourish as a green bay tree. Silk shirts will again take their places of honor in the store windows,—and the giddy days will be here again. They are on their way just as sure as God made little apples hard and green! If the supply of cocaine is large, we will not have to endure that pounding hangover headache too soon. We hope for the best,—but the signs are not reassuring.





# IS OFFSET PRACTICAL

BY WILLIAM B. MARSH

THE suspension of the much-publicized *Hartford Newsdaily*, first metropolitan daily newspaper to adopt offset, after a little more than three months of publication has had a tendency to obscure the truth about and detract from offset's very real accomplishment in the field of newspaper production.

The *Hartford Newsdaily* was a glittering experiment. Because it was the first metropolitan daily newspaper to attempt production by offset, the *Newsdaily* aroused comment and discussion from coast to coast. Naturally, when the paper failed to make good at the first attempt, there was a good deal of shoulder shrugging and *ex post facto* wisdom exhibited. The number of people who "knew all along it wouldn't work" proved to be legion.

The truth of the matter is that the use

of lithography had very little to do with the fate of the *Newsdaily*. Bice Clemow, managing editor of the paper, himself stated before the American Newspaper Publishers' Association convention in New York:

"I think that the offset principle itself, as a way of producing a better, cleaner, brighter, snappier newspaper, is sound. . . . Don't look to offset for a great economy unless you are willing to get out a bright, modern picture job, because that is where it will save you money. If you were getting out the same job by letterpress, you would have to have a bigger force making halftones than we have for producing our whole newspaper. I think offset will save probably 25 per cent."

It is my own opinion that the trouble with the *Newsdaily* lay in the fact that it was attempting to sell 16 tabloid

pages for 5 cents in competition with two old-established, high quality, full-sized newspapers that were giving their readers twice as many pages and better news coverage for 3 cents. It was a bad merchandising idea, no matter what the quality of production might have been. Those who are familiar with the difficulties of *PM*, the new New York tabloid daily selling for 5 cents, which is produced by letterpress and with almost unlimited backing, will agree with the truth of this.

Whether offset can be successfully adapted to the production of a metropolitan daily newspaper is, then, still a moot question. It will probably be tried again and yet again, for the process undoubtedly has important advantages over letterpress, especially in a world where picture coverage is becoming more and more essential. In



the meanwhile, there *is* a field of newspaper production in which offset is *already* going to town. That is the field of small-town dailies and weeklies.

In preparing the periodical exhibition for the Living Lithography Exhibit, I got together a list of 28 newspapers that were reported as currently being produced by the offset method. Of these, one, the *Opelousas (La.) Daily World*, was a daily paper. One, the *Trenton (N. J.) Sunday Times-Advertiser*, was a Sunday magazine supplement elaborately done in color. The rest were all small-town weekly newspapers.

The response to my request for copies of these periodicals and for information regarding conditions of publication was generous. The periodical exhibition recently on view in Philadelphia contained 16 representative offset newspapers. And here are some of the facts that emerged from the survey:

Excluding the *Trenton Sunday Times-*

work. Standard press equipment for the small-town offset newspaper today seems to be an ATF-Webendorfer 17 x 22 sheet fed offset press. Thirteen out of the 16 reporting were produced on this press. One was produced on a sheet fed Miehle, one on an ATF-Webendorfer web-fed newspaper press and the *Trenton Times Advertiser* on a special web-fed Hoe press capable of lithographing 4 colors on both sides of a 68½ inch web at a production speed of 30,000 16-page tabloid-size newspapers an hour. Two of the periodicals reported their intention of installing web-fed equipment in the near future.

AN outstanding characteristic of practically all these offset newspapers is the extensive use of picture material. While not all of the reporting periodicals submitted actual figures, the average of those so doing shows that 24.5 percent of editorial space is devoted

or five of them have some letterpress equipment in addition to their offset equipment. Practically all of them do commercial work. In answer to the question, "What types of work are easiest to get for offset equipment?" here are some of the answers:

Jobs for department stores with halftones, line drawings, wash drawings or benday.

Letterheads, booklets, mailing pieces.

Letterheads, envelopes, ruled forms, reproduction work, direct mail pieces, maps, sale bills.

Ruled forms, golf course score cards, posters.

Form letters, grocery circulars, etc.

Ruled forms, circulars, menus, letterheads, etc.

Folders, record sheets, sales bills.

Office forms and advertising folders.

## FOR THE NEWSPAPER?

*Advertiser*, these papers were published in towns with an average population of 14,350. One paper, the *Remsen (Iowa) Call-Advertiser*, is published in a town of only 1,200 people, but the paper itself boast a circulation of approximately 2,000. Again excluding the *Trenton* periodical, the average circulation of all these newspapers was 5,025, the smallest being 1,600 and the largest 13,000. The *Trenton Sunday Times-Advertiser* is, of course, in a class by itself with a weekly circulation of approximately 36,000.

How recent the application of offset to newspaper production is appears from the fact that only one of these periodicals was started as early as 1936. Two more commenced publication in 1937. None of them started in 1938, but 5 got their start in 1939 and 7 more first appeared in 1940. It is interesting to note that practically all of these publications are self-contained production units. All but one of them make their own offset plates, do their own composition and their own press-

to pictorial reproduction. A few papers use only local pictures, but many of them use national and international picture material as well. It is clear that the use of lithography makes possible a much wider picture coverage at reasonable cost.

As is to be expected, an important part of the revenue of these small-town newspapers comes from job work. Four

On the all-important question of cost of production, there is a pretty general agreement that, to produce the heavily illustrated type of newspaper now demanded by the public, it is cheaper to use lithography than letterpress. Eleven of the reporting newspapers state unequivocally that they can produce *their* newspapers cheaper by lithography than letterpress. As one publisher puts it:

**When the Hartford Newsdaily folded after less than a year of operation, there was much shoulder-shrugging and "I told you so's" evident. The Newsdaily was a glittering experiment, but it wasn't a true test of lithography for newspaper production. The real test is being made by the small-town daily and weekly.**

"It depends on the amount of pictures we use. The more pictures, the cheaper."

Another paper reports: "Experience limited in other fields, but our expenses are lower than letterpress papers of comparable size in our territory."

Still another publisher states that "the biggest saving is on equipment both in the composing and press rooms, elimination of casting mats, etc."

Four of the publishers said that their experience with lithography was too limited to permit them to compare their costs with the cost of doing a similar job by letterpress. Only one paper, the *Trenton Times-Advertiser*, answered "no" to the question whether lithography was cheaper than letterpress, adding, however, "but much more attractive."

The real meat of the data submitted came in answer to the question: "What is your opinion of lithography for newspaper production? (Please include both favorable and unfavorable factors.)" It is impossible in a limited space to quote in full all the comments received, but a few typical examples are illuminating.

"Lithography is, no doubt, the coming thing in the newspaper field," says one publisher whose periodical circulates to some 7,000 readers. "Our paper is complimented almost every week for the excellent pictures we carry."

"This is the revolution in publishing, especially in the heretofore neglected weekly field," declares another publisher. "We are now bringing to our subscribers the same intense picture coverage of local news that was always the big selling point of the modern daily. We feel that for once in the history of weekly journalism it is possible, by means of lithography, to inject life into a traditionally monotonous, almost dead publication,—the small-town, community newspaper."

"One of the most important factors in favor of the process is that advertisers can have anything in their ads they desire,—and we emphasize the word *anything*," reports a West Coast publisher. "After approximately five months of offset publication during which we traveled a difficult road with many discouraged employees, I can say now positively that every member of our seven-man crew is sold 100%. The process and equipment is OK, but it is like any other business,—the men must

learn how to operate the machinery. I believe the future of weekly newspapers and small-town dailies lies in the offset field."

The importance of trained operatives and the difficulty of obtaining the services of experienced men is again emphasized by a publisher from the Middle West. "Lithography is a better process," he says, "if trained workmen are available. More skill is necessary for offset than letterpress,—that is for small plants and country papers. Most anyone can get a passable print from old cylinder presses found in various small newspaper plants, but it takes a more competent workman to produce passable work by offset. However, a larger scope of commercial work is available to offset."

Still another publisher, with more than a year's experience behind him, writes: "Due to the many angles that we can use in creation of copy through our copy writing department and co-operation of our art department, we offer the advertiser a final presentation of his message that is attractive and brings results. Starting with four pages, our paper, in face of a past history of

Because of his work for American Type Founders as publicity and public relations counsel, Mr. Marsh has had occasion to make a close study of the current use of offset lithography for the production of newspapers, magazines and house organs. In consequence, he was invited by the Living Lithography Exhibit to prepare an exhibit of offset periodicals which was shown during October at the Philadelphia Art Alliance. In getting together his material, Mr. Marsh collected some facts and opinions regarding the use of lithography in the publication field which will undoubtedly be of interest to readers of MODERN LITHOGRAPHY. The present article deals with the place of lithography in the field of newspaper production. An article on magazine production by offset will appear in an early issue.—Ed.

failures in other 'starts' and bucked by a powerful newspaper, has consistently grown to as high as 16 pages, but with a weekly average of 11 pages."

One of the newer publications, which devotes as much as 33% of its editorial space to pictures and estimates a saving in production costs through lithography of some 25%, declares that "for a tabloid size newspaper such as we are printing, there is no comparison between the work that lithography does and letterpress. There is no limit to what can be done with pictures."

THESE comments, it should be noted, are all from publishers of small-town weekly papers and it is in that field that the immediate usefulness of lithography for newspaper production appears to lie. The publisher of the *Opelousas Daily World* states: "We're all for it (lithography)," but adds, "Would not be good for multiple edition papers. Takes more time. A cheaper method of setting type, such as a good justifying typewriter that produced decent copy, would make the process ideal."

From the *Trenton Times-Advertiser*, a publication obviously experienced in the problems of daily newspaper production in a metropolitan area, comes the comment: "The lithographic process is too slow for the production of large circulation dailies where more than one edition is used, but might be profitably employed on one-edition, small-circulation dailies permitting the use of many pictures now not published."

A summation of the reports received from these 16 newspaper publishers, whose experience with offset production ranges from a few months to several years, leads to the following conclusions:

#### *Advantages of Offset for Newspaper Production:*

1. Permits greatly improved picture coverage at reasonable cost.
2. Permits improved service to advertisers.
3. Cuts production time in the composing room and permits a greater volume of commercial work to be done with the same staff.
4. Opens up a larger field of commercial work.
5. Is generally more economical for the

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#### MODERN LITHOGRAPHY

# THE MECHANICS OF COLOR SEPARATION

By Herbert P. Paschel

*A discussion of the contact, projection, and process camera methods of separating color films.*

AS advertising becomes more and more color conscious, lithographers are being called upon to turn out an ever-increasing amount of color reproduction work. The technology of color separation has been discussed at length in previous articles. It is the purpose of this article to discuss the mechanics of separating color films.

For the size of the film, the nature of the job, and the method in which it is to be handled dictate the procedure to follow in making the separations. Separations can be made in the camera, by contact or by projection. The contact method assures absolute register of the four images and at the same time permits the recording of the utmost in

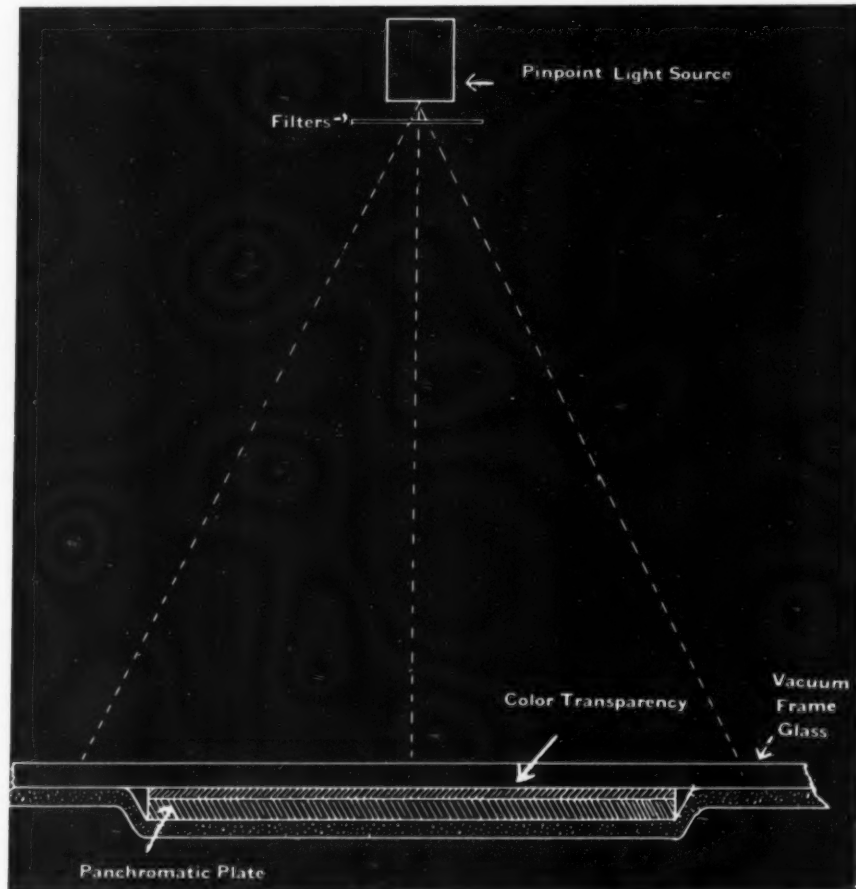
tone and color values. When working from miniature size transparencies, the enlarger method is the most expedient and certain system. For enlarged or reduced negatives from large transparencies, the process camera is used.

## The Contact Method (Fig. 1)

THE glass in either the printing frame or vacuum frame should be of good quality, free from scratches, flaws and other aberrations. If an ordinary printing frame is used, it should preferably be large enough to accommodate both the transparency and a grey scale or film. It is necessary to provide a pinpoint light source directly over the area to be occupied by the transparency, and provision should be made so that the light source may be filtered with the appropriate separation filters.

The distance between light source and transparency should never be less than 3 feet if an even distribution of light is to be expected. A satisfactory light source can be made from tin or cardboard (Fig. 2), so constructed that the tin becomes the housing for a tungsten filament lamp. A small cir-

Fig. 1. The contact method of making color separations from transparencies using a vacuum frame or printing frame, and a concentrated filtered light source.





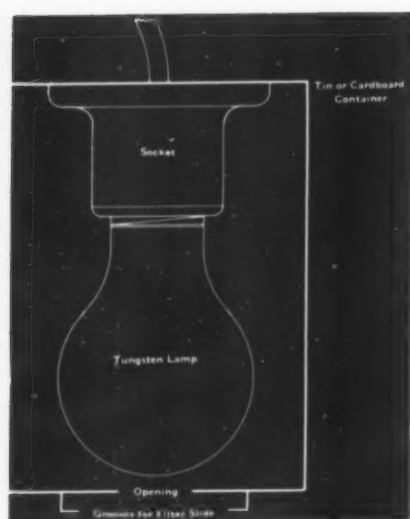
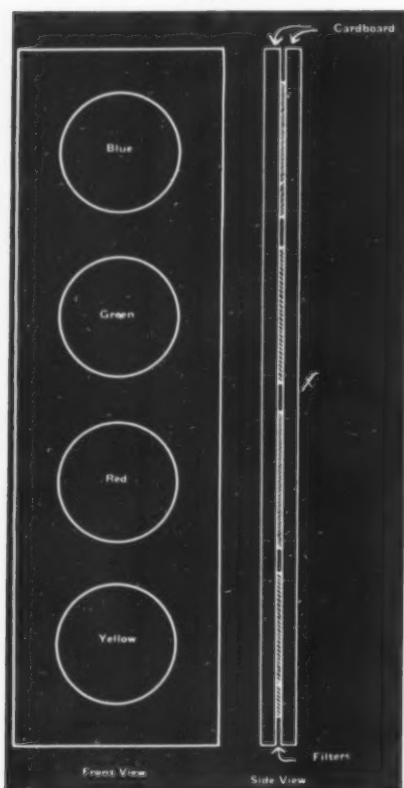


Fig. 2

cular opening is cut into the can, and metal or wooden channels are attached on either side to provide grooves for a filter slide. The filter slide (Fig. 3) is composed of two pieces of cardboard of equal size into which four circular openings, slightly smaller than the filters, have been cut. The gelatine separation filters are placed in their respective positions between the two pieces of cardboard which are then glued or stapled together and the edges bound with scotch tape. This type of mount not only makes the filters easier

Fig. 3



to handle but also prolongs their useful life.

An Eastman Safelight Lamp No. 1 can also be easily adapted to provide a suitable light source. A piece of cardboard, metal or plywood with a small circular opening in the center is substituted for the safelight filter. Grooves are also provided to receive the cardboard filter slide.

In order that the negative images will read correctly from left to right when viewed in the general manner, Kodachrome films should be placed in the frame with the image (emulsion) side against the glass. Dufaycolor films should be placed with the celluloid side toward the glass. If "Newton Rings" are encountered in the negatives, these can usually be eliminated by inserting a thin piece of thin, clear, or matt celluloid between the glass of the frame and the transparency. In the case of the regular printing frame, it is important that the pressure be uniform all over since even a slight lack of contact will cause patchiness of color and register difficulty. Aside from the difference in physical operation, the photographic considerations regarding accuracy in exposure, filter factors, etc., remain the same as those in the camera method. Of course, the actual filter factors for the tungsten light source will be quite different from those employed with arc lights, the photographic material being the same in both cases.

If the volume of work warrants devoting special equipment to the purpose, an efficient contact separator can be constructed along the lines outlined by Dufaycolor (Fig. 4). This involves the construction of a light, tight cabinet of suitable height in which is provided even illumination from a constant light source at the base. A printing frame is fastened to the top of the cabinet to hold the negative material in close contact with the transparency. The separation filters can be introduced into the beam of light at any convenient place providing they do not partially block or vignette the light rays as they pass through. A toggle switch or photo shutter can be provided to control the exposure.

The Curtis Master Color Printer (Fig. 5), a precision instrument of the type discussed above, is also available to the trade. It will accommodate

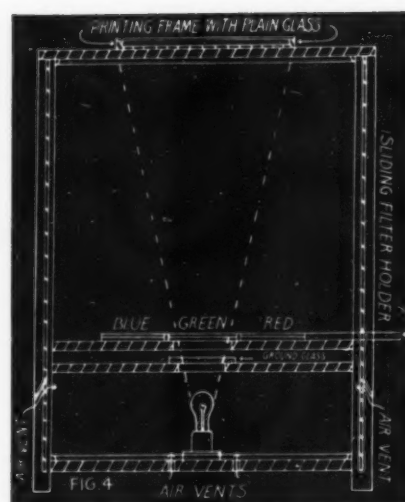


Fig. 4

transparencies up to 11" x 14". Because of its compact construction it requires a minimum of space. A filter disk permits rapid change of filters, while provision is made for positive voltage control to maintain correct color temperature. Contact positives, masks and the like can also be made by means of a white light aperture. The pen point light source insures wire sharp negatives. The Curtis Model K Color Printer will take transparencies up to 4" x 5".

#### The Projection Method (Fig. 6)

MOST high grade photographic enlargers of the miniature type are

Fig. 5





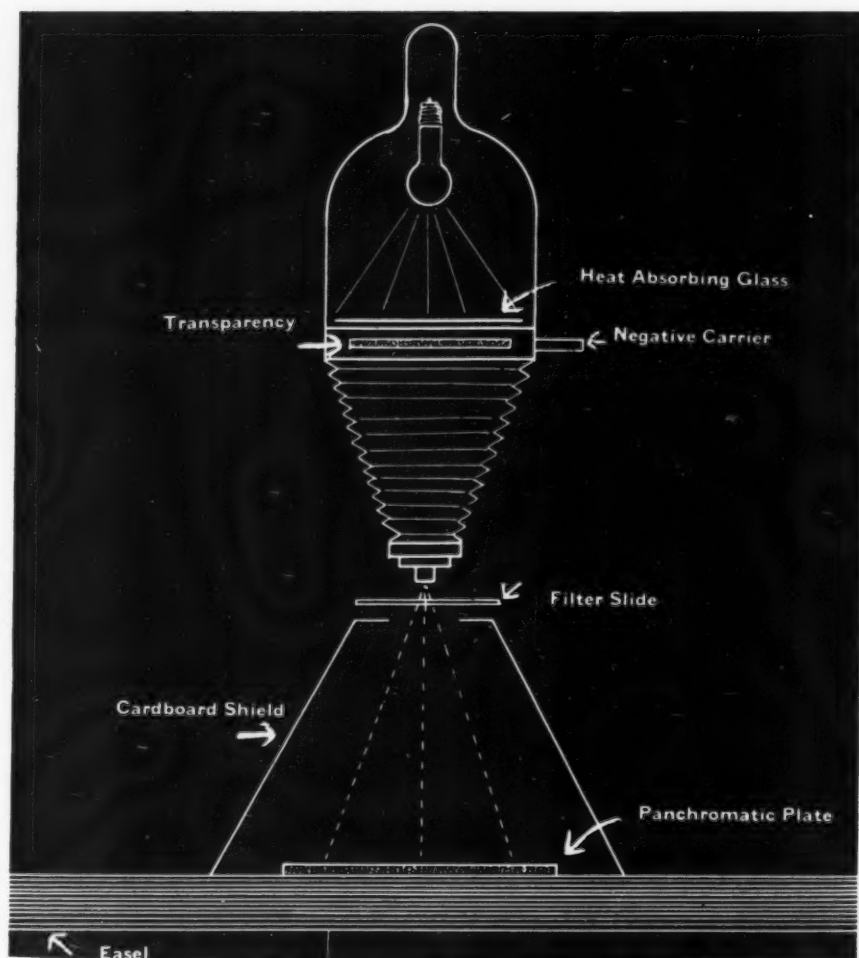


Fig. 6. A schematic illustration of the projection method, showing the cardboard shield for protecting the sensitive material from stray light.

suitable for the projection method. The enlarger need not be massive but it must be of sturdy construction to obviate any movement during or between exposures. The lens must be well corrected for chromatic aberration, otherwise difficulty may be experienced in obtaining exact register of the separated images. The Kodak Precision Enlarger (Fig. 7) exemplifies a miniature enlarger designed with separation work in view. A filter holder has been provided (Fig. 8) which permits rapid change of filters without undue movement of the en-

larger. The glassless 35 mm. transparency holder (Fig. 9) contains a step tablet (grey wedge), as well as three color patches for easy identification of the separation negatives. Construction of the light housing is such that all extraneous light is eliminated.

In the absence of a filter disk as standard equipment, as is the case with certain enlargers, the filter slide (Fig. 3) may be attached to the lens by means of a clamp-on filter holder. The next important consideration is a means of holding the panchromatic plate in posi-

tion during the exposure. An ordinary printing frame from which the glass has been removed will do the trick. By means of metal or cardboard strips, a guide can be provided on the enlarger easel so that the frame can be placed in the same position each time. The plate is inserted in the frame with the emulsion side out and with the back of the frame on the easel surface, the emulsion will face the lens. In the case of an enlarger with a leaky light housing, a shield must be constructed (Fig. 6) which will prevent any stray light from reaching the sensitive emulsion surface. The shield may be constructed of cardboard or plywood and should be painted a dull black on the inside. Because of the concentrated light source and the ease of operation, separation negatives may be made in much less time than in the camera. In addition once the enlarger method is carried out in the darkroom, the camera may be used for other purposes.

#### The Process Camera

ONE of the greatest disadvantages of the process camera for color transparency work is the great loss of light when directing the arc lights at the transparency. When using the reflected light from a white curtain, or the direct light from the arcs interposed with ground glass, a loss of over 75% of the arclight efficiency is experienced. As a

(Turn to page 55)

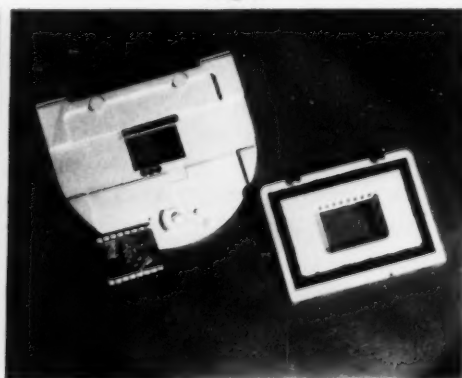
Fig. 7



Fig. 8



Fig. 9



# POINT-OF-PURCHASE ADVERTISING from the consumer's angle

By L. L. GRISAMORE\*

**P**POINT-OF-PURCHASE advertising has been much discussed in the last year or two from every possible angle. The most important one no doubt concerns what occurs when this type of advertising is exposed to the consumer's view. In other words, possibly the most important angle from which to view point-of-purchase advertising is the consumer's reaction and what governs or directs that reaction.

Obviously, the message delivered to the consumer by the illustration and copy, individually or together, is an essential factor. This is where lithography, for the past ten years, has played such an important part in the growth and development of point-of-purchase advertising.

In order to discuss point-of-purchase advertising from the consumer's standpoint, we will have to look into different types of displays, different sizes, shapes and color schemes. We must see how and why displays are planned for certain effects and how they achieve these effects.

In this, however, it will be necessary to analyze not only the reaction of the consumer, but also that of the dealer. It is recognized that the dealer himself has a very strong influence on the planning of such advertising. He transmits to the advertisers his preferences, based on his experience with the reactions of his customers, to the different types of displays used in his particular store. Then, in order to approach this subject from a definite basis of understanding, we must agree that point-of-purchase is an advertising medium of major importance.

Each medium of advertising has

different characteristics and must necessarily be used differently. In planning an advertising program this difference of treatment of each individual medium affects the manner of use, and the volume or intensity of use of each. The objective of all advertising is to sell. Some advertising sells directly, some indirectly, some an idea, some the

product itself. But at all times successful advertising sells.

Regarding individually each medium in any one given advertising program, we know that there is a limitation to the extent of use of each, depending upon the product and the market to be reached, and that the *excessive* use of any one medium results in waste. This point is determined not only by proper relation to the other media used in the same program, but by the size of the entire appropriation.

Since, in this article, we are primarily interested in only point-of-purchase, let us single it out from the advertising program we have been talking about and proceed from that point. Before that, however, it might be well to contrast it quickly with its companion media.

First glance brings out that the most outstanding characteristic of point-of-purchase advertising is that it delivers its message to the consumer at the right time always, when he is able to buy. At the point-of-purchase, there is nothing to hinder the customer from stepping to the counter to make his purchase immediately after the advertising message is received by him. In all other media—radio, newspaper, magazine, etc., he must wait until the opportunity arrives for him to walk into the store. Consequently, the ratio of actual sales to the number of messages delivered is in inverse ratio to the distance, either in space or time, from the point-of-purchase.

Point-of-purchase advertising, in contrast with other media, is unique in that it acts as a guardian against loss of impression made on the consumer by all other media. Excellent selling impressions may be made in the mind of the consumer by radio, magazine or newspaper, but many brands are advertised



\*Mr. Grisamore, of the Arvey Corp., Chicago, was recently re-elected president of the Point-of-Purchase Advertising Institute.

BENSON & HEDGES  
*"The finest in Cigarettes"*



Which one of these examples of point-of-purchase advertising will ring the bell—the one on the opposite page or the one above? Matter of fact, they both will—and did. Yet their appeal is as different as Main Street and Park Avenue. Which proves that there are as many types of point-of-sale advertising as there are products and consumers. It's all in knowing the consumer's—and the dealer's—angle, as well as the product. Einson-Freeman, Long Island City, lithographed both of these.

and the average individual's mind is occupied with many other things. When the consumer walks into the store, those very excellent selling impressions have already been minimized by time. At this moment, point-of-purchase advertising serves not only as a final reminder, bringing to life again previous impressions of any single medium, but co-ordinates, combines and reiterates the previous impressions of all media used in the advertising effort into one last powerful sales impression.

Point-of-purchase advertising has even more strength of appeal than other advertising. A few people buy newspapers or magazines just to look through the ads, but window shopping is a great American pastime. The consumer in countless numbers voluntarily gives his undivided attention to this great advertising medium.

**T**HERE are numerous other characteristics of point-of-purchase advertising, such as its power to create

good-will among dealers, the flexibility with which intensity of coverage may be planned, its low cost of circulation, its ability to stimulate retail sales generally, its adaptability to more accurate timing, its application more closely to variations in local purchasing power, and its insurance value against loss of sales impression by competing advertising material at the point-of-purchase. These characteristics will become clearer after we discuss point-of-purchase advertising more fully.



In planning point-of-purchase advertising material, the factors that should receive first attention are size; type of display; whether still, motion or unusual effect; and construction. Layout, copy and illustration, while they depend upon the three factors just mentioned, are nevertheless extremely important since many an effective display otherwise, has proved to be a failure without effective reproduction of illustration and copy. There have been countless cases where a display has depended upon its lithographic reproduction for its entire effectiveness. You have seen many simple, square-cut displays which have proved to be attention-getters merely because of an unusually striking lithographic illustration.

It must be kept in mind at all times that the advertiser is dependent upon the dealer for the success of point-of-purchase advertising. If the dealer doesn't like it, it will never have a chance to do its good work. Of course, the dealer *must* use displays. He can't get away from it. But he is going to use only those displays which he thinks are going to do him the most good. And that doesn't mean the display which the *manufacturer* likes best.

What the dealer likes in the way of displays is not difficult to understand. The display he likes must be able to sell merchandise because, after all, that is of prime importance to him. Even if the display is lacking in other directions—let us say it is not particularly attractive from the standpoint of art technique—if it will move merchandise, the dealer will like it and use it to advantage.

It need not sell only the particular brand advertised upon it, but it may help sell other merchandise also. Many such displays are so designed to form a suitable background for a grouping of related items in the dealer's window which help to suggest needs or wants to the consumer more effectively. In this way, a display advertising paints, for example, can also help to sell brushes, varnishes, turpentine, sponges.

The dealer expects that a display will command attention. Catching the attention of passersby inside or outside the store can be done in a hundred different ways. Here is where showmanship comes in. In a men's shop, for instance, it may be easily effected with an illustration or cutout of a pretty girl

with an attractive figure. It may be done with size of display alone, or with color, with copy or motion. You've all seen groups standing in front of a display window watching an animated display of some kind or other. An action display is second only to the excavator in attracting and holding attention.

An important point, too, is that the display must be conveniently packed for ease in handling by the dealer and must be so designed that it is simple to assemble and install. This is essential because if the dealer fails to put the display together it is a complete failure, no matter how perfect it is, no matter how gripping, how compelling the message.

We have now covered the most important factors to be taken into consideration in planning point-of-purchase advertising. There are other considerations also which cannot be disregarded . . . Will the display be used in a closed back or open back window? This will have a bearing on the construction of the piece in question. Will it attract attention at a distance of twelve or fifteen feet? Is it simple in layout and illustration so that one who cannot read the language will understand? Is the entire idea presented simply and effectively so that it can be grasped very quickly by anyone? Is the copy large enough so those without perfect vision can read it? Is it sturdy enough to withstand occasional or accidental mishandling?

**I**N determining just what is the right size, type and construction of display, the type of product and the type of store must be kept in mind.

We find that we will not often be able to use a large display for lipstick, for instance. Here, both the product and the type of store influences the size of the display. Lipsticks usually are displayed and sold in drug stores, variety stores and at the cosmetic counters of department stores. It would be very difficult to get any of these to use a large display.

Some products again have little opportunity of being displayed in the dealer's window because profit is not enough on the advertised item to justify use of such valuable space. This may be caused by infrequent sale, low price of the item or short margin of profit. That

same window space is needed by the dealer for another display that will make more sales and more profit. Proper point-of-purchase advertising for that product could possibly be counter stands, or ceiling or wall hangers. If the dealer thinks enough of the product to stock it at all, he will be willing to use advertising material, but only if it is properly designed to fit his needs. Where the advertising material is to be used in the store will, therefore, materially affect the size of the piece.

The type of display to be used depends largely upon the ingenuity of the construction experts or idea men. The most tricky and ingenious display, however, can be a failure if a number of important facts are not taken into consideration.

One of these is a rather human trait in the dealer. If several displays previously sent to a dealer by a given advertiser were not used by him because they did not measure up to his standards, he may take the next display received and file it in the waste-basket without a second look. That display may be a world beater and an excellent sales-getter, but the dealer remembers the last few unsatisfactory displays from that advertiser and assumes he is getting more of the same kind.

In planning the type of display, care must be taken not to imitate too closely, if at all, similar displays advertising competing merchandise. The dealer will use competitive displays, but not if they are similar in construction or idea. Many dealers believe that they must continually change their displays in order that their customers may not take them for granted and lose interest. New ideas in display are therefore always at a premium.

Precedent in style of displays, while not nearly so much a factor in this era of revolutionary changes as in former days, must still be taken into consideration. There are many institutions and businesses able to use point-of-purchase displays who will not accept a distinct departure from what they have been using.

Again, the type of store in which the display is to be used will affect the type of display. Syndicate stores, for instance, particularly variety stores, will not use many large displays nor will they

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# DRYING OF LITHO INKS

*Although it is still not possible to be absolute in discussing litho ink drying procedure, many drying problems have been eliminated.*

**By M. J. LECKEY\***

**R**ESearch work conducted in the past few years has uncovered much valuable information concerning the drying of inks, but further investigations still remain to be carried out. The reason for this is that the structure or chemical composition of lithographic varnishes and vehicles is very complex and the exact changes which they undergo in the drying process are difficult to determine. We do know, however, that the varnishes and vehicles undergo an oxidation, that is, they absorb oxygen from the surrounding atmosphere. In doing this, a rearrangement in the chemical structure takes place and the varnishes pass from the fluid state to the semi-fluid and thence to the solid state. This rearrangement takes place by both oxidation and polymerization. Diagram #1 (below) shows an example of organic oxidation (1-A) and polymerization (1-B).

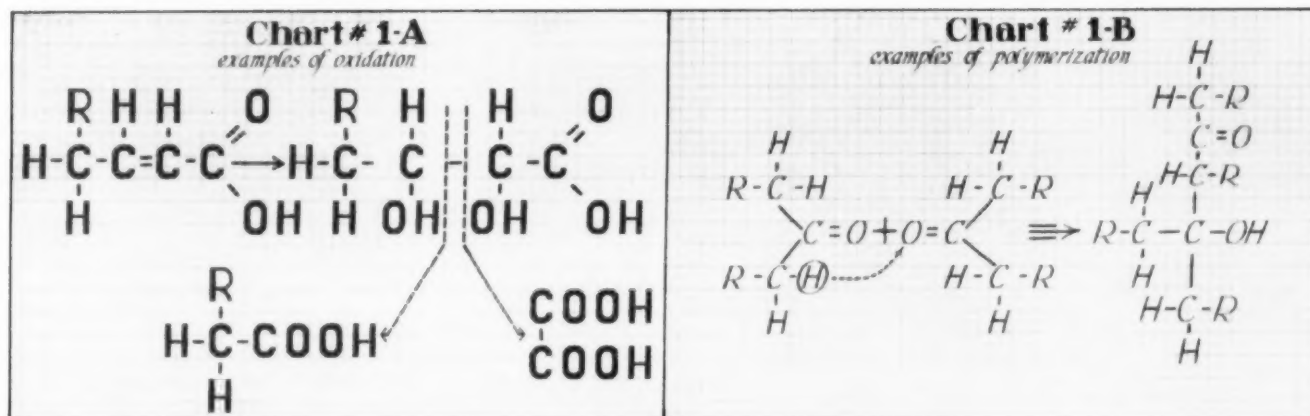
A lithographic varnish or vehicle will absorb oxygen from the air by itself, but the process is much too long for practical purposes so various ingredients are added to speed up this action. These ingredients are metals in the form of organic soaps which are similar to ordinary soap, except that the metal, instead

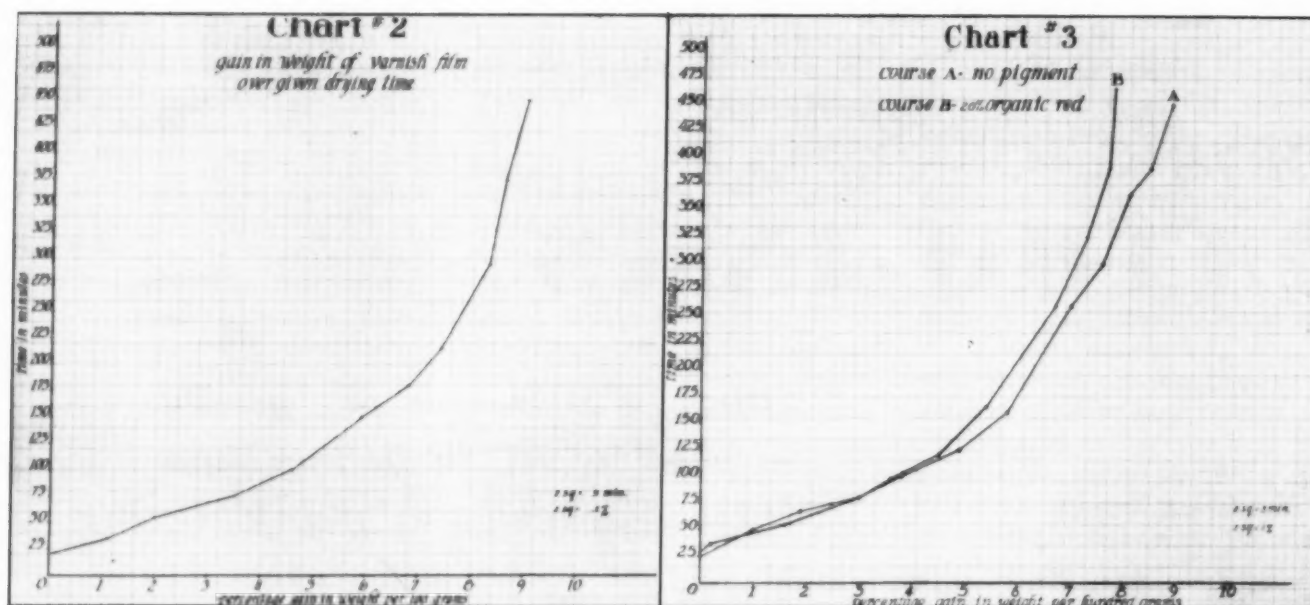
of being sodium or potassium, generally is lead, manganese and cobalt, and the organic acid used is, as a rule, more complex than that used in ordinary soap. The action of the metals or driers is catalytic in nature, a catalyst being a substance which speeds up or retards a chemical action yet does not enter into the reaction itself. In other words, the drier is like the boss on the job. It sees that the work is done without doing it itself.

In the actual drying of the ink film, we know from experiment that oxygen is absorbed from the air because the ink film increases in weight. (See chart #2.) Various pigments also affect the drying of inks, most of them retarding the drying with the exception

of the inorganic colors. (See charts #3 and #4.) Here at the very beginning we can see that the ink maker and the lithographer must take into consideration the amount of drier to add to inks, as the percentage of drier will vary with different pigments. Laketine and alumina hydrate occasionally absorb drier from an ink when the ink is left to stand for prolonged periods. Consequently, it is advisable to mix only enough ink, when these ingredients are used, or a little less, than necessary for a particular job. Such a practice eliminates the possibility of inks not drying when put into use after being stored from a previous job.

\*Research Chemist, Sinclair & Valentine Co., New York. Delivered before the Philadelphia Litho Club, Nov. 25.





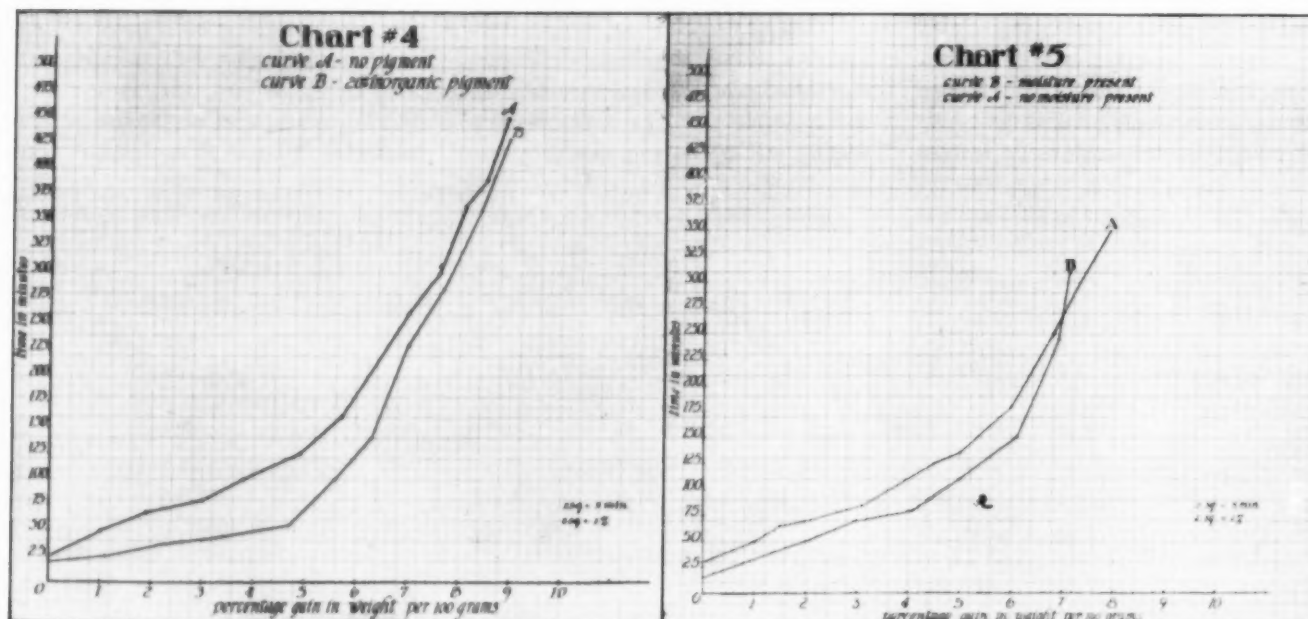
Before taking up the next point, I would like to mention that a small amount of moisture present in the drying film, contrary to general belief, aids in the drying. (See chart #5.) Remember, I emphasized a small amount and I will come back to this point later on. Sometimes we hear it said that too much drier brings about a retarding action. This phenomenon was commented upon in a German research paper ("Drying of Printing Inks" by R. Beuerle—July 1936—*Farben Chemiker*) but we feel it has no basis scientifically. However, we do know that after a certain point drier loses its maximum efficiency. This can be proven by the fact that an ink

which will dry in four hours with 5% Cobalt Drier will not dry in two hours with 10% Cobalt Drier.

An operator using a set of inks with which he is familiar can with a little care and under ordinary circumstances, control the drying to suit his needs. Under adverse weather conditions, provided neither the pressroom nor the paper are preconditioned, manipulation of the drier and the ink formula must be resorted to. Changes in the relative humidity or moisture content of the air and of the temperature affect the normal drying of the ink film. A situation which during the humid days of last summer arose in one of the larger

lithographic plants in New York will illustrate this point. A job was run with a set of inks which with the normal amount of drier added had dried satisfactorily in numerous instances before, yet in this particular case the inks required a much longer period to dry and when they finally did dry, the ink film was brittle and chalky. In an effort to discover the cause of the trouble, careful checks were made and we found that when the weather conditions which existed while the job was run were duplicated in the laboratory, longer drying periods and chalky ink films resulted.

Here then was our answer to the



problem. The job was run on coated paper and coated paper is not a continuous film, but rather one which is made up of numerous small capillary openings which have great absorptive powers. When an ink first hits a coated sheet, absorption of the vehicle into that sheet begins immediately and continues until the drying of the ink changes the varnish from the fluid to the semi-fluid and thence to the solid state. When the relative humidity is high, drying time is retarded and consequently absorption continues until most of the binding vehicle is absorbed and the pigment, together with a small percentage of binder, remains upon the surface of the stock. Naturally, such an ink film will be chalky as was the case in this particular job.

Such a problem as this can be solved by making the necessary simple adjustments in the ink. When the relative humidity is high, to avoid such trouble it would be wise to add an extra quarter ounce of cobalt drier to the pound of ink, together with  $\frac{1}{2}$  to 1 ounce of #5 varnish, or if possible #8, or better still, a synthetic binder. Splash, kerosene and similar reducers should be avoided under such circumstances as they tend to increase the amount of penetration and hence chalkiness.

Just as variations in weather conditions affect the drying, so likewise do variations in press conditions. New rollers and rubber blankets tend to speed up drying for the first few hours of use as they absorb some of the vehicle from the ink. This is especially true when running gloss inks as most of them are formulated with vehicles which set up quickly in order to maintain their gloss. This situation is one of the reasons why we find that occasionally part of a job will dry faster than another part.

The lithographic process is made possible by the fact that the varnish and water have not a great affinity for each other. In reality, however, the ink and water do mix very slightly when the correct amount of water is carried on the plate. Too much water carried on the plate has a tendency to cause the ink to become water-logged or emulsified with the oil-in-water type of emulsion resulting. Such an ink requires a much longer period to dry and in some cases will not dry at all. The proper amount of water on a job will not retard the

drying in any way, for small traces of moisture in the ink film, as pointed out in the very beginning, accelerates the action of the drier.

**T**HE pH of the fountain solution may also influence drying time. Here it might be wise to define pH. pH is really an index or means of expressing the acidity or alkalinity of a solution. Water taken as standard or neutral has a pH of approximately 7. Alkali solutions have pH's greater than 7 and acid solutions less than 7. A pH of 8.5 therefore means that the solution is on the alkaline or basic side, whereas one with a pH of 4.5 is on the acid side. If a fountain solution with a pH that is too high is used, not only will the work on the plate have a tendency to "walk off" but also tend to cause the inks to emulsify and thereby retard the drying. According to the research bulletin No. 6 issued by the Lithographic Technical Foundation, the best pH for zinc plates is 4.8 and for aluminum plates 4.6. We note that there is not much variance between these two figures and consequently such a change in the solution should have no great effect on the ink. A simple and practical way of controlling pH is discussed in Bulletin #6, page 77, and is used in many plants today. It is the color metric method by which a sample of the fountain solution is taken and a few drops of indicator added. The resulting color is compared to a standard color of which the pH is known. (An indicator is a chemical that gives different colors and degrees of coloration at various pH.)

Paper, quite naturally, has a great deal to do with the drying of lithographic inks. If the paper is absorbent, the ink sets up more quickly than on a hard stock. The ink should be formulated for the paper so that if a very absorbent stock is used, allowances will be made so that too much penetration will not result, and chalking similar to the condition that arises when the relative humidity is high, as previously mentioned, will not occur. If the stock is hard and nonabsorbent, the ink should be formulated so that sufficient penetration will be taken care of and the ink will not have to depend entirely upon oxidation to dry. Consequently, it is wise if possible to test the drying whenever a new stock with which the plant

is not familiar is put into use. Such a practice is also advisable whenever exceptionally long runs are to be made even though similar jobs have been handled on shorter runs.

Today, the paper manufacturer and the ink manufacturer are working very closely together to eliminate many of the headaches which formerly arose due to improper stock or improper ink. Paper which contains too much moisture or which is not pre-conditioned before use will have a tendency to retard the drying of ink, as the amount of moisture present in the paper at the start, plus the moisture which is picked up in the lithographic process, may cause the ink film to become water-logged.

Many new developments to hasten drying and to eliminate drying troubles are well past the experimental stages. Among these are the use of new synthetic vehicles, the use of infra red rays and the use of new and improved resins. The ink manufacturer is continually working on these angles and the Lithographic Technical Foundation with research headquarters at the University of Cincinnati is also devoting much time to the problem. While many conclusions have been arrived at, it is still not possible to set forth absolute rules to be followed. If a special drying problem arises, it is wise to consult your ink-maker who will be more than willing to cooperate with you.

#### • Curtis N. D. Dodging Dye

The application of dyes to continuous tone or halftone images to hold back some area from printing is an established practice in process photography. The use of red or orange dyes has the disadvantage in that the visual density is not necessarily the printing density. The color of the viewing light will also influence the visual density of red and orange dyes. To facilitate the retouching operations, the Curtis N. D. Dodging Dye, manufactured by Thomas S. Curtis Laboratories, Huntington Park, Calif., has been developed. It is neutral black and when applied to continuous tone negatives and positives is said to have a printing effect the same as that perceived by the eye. It permits fine blending with delicate tones and because of its composition a smooth application in broad or small areas is possible.





## ...speaking of headaches

*Here's a gentleman who claims he had a few, too, before he became a full-fledged lithographer. The article by B. T. Russell entitled "The Education of An Offset Printer" in our September issue has inspired him to spin out his misadventures. Perhaps other readers would like to add to these. If so, let's have 'em.*

**By B. L. LEROI\***

**N**OT unlike the Mr. B. T. Russell who wrote that very amusing and enlightening article, "Education of an Offset Printer," which appeared in MODERN LITHOGRAPHY a couple of months back, and which I unreservedly recommend to the attention of anyone thinking about entering this industry, I, too, was a comparatively happy man until I became an offset printer. Not that I am an unhappy one today, although I'm still an offset printer. Far from it! But the trouble I've had!

Now that I look back on it, I don't know how I stood it. But because I did stand it, and because I muddled through somehow, and because it looks like it was all worth the fighting and the heartaches, I would like to add my two cents' worth to the epic story that was Mr. Russell's so that those who come after us may, perhaps, be spared some of our mistakes and blunders.

In fact, I think that if I were the head of one of the many graphic arts trade associations which flourish in this growing industry, I would go out of my way to compile case histories like Mr. Russell's and mine for posterity. For surely, the next few years are going to

see more and more letterpress printers and photo-engravers enter the lithographic industry. Such case histories would not only help these newcomers, but the lithographic industry itself, and everyone in it. The fewer failures there will be, the fewer shops turning out poor work and inferior quality stuff, the better it will be for lithography.

Well, to begin my story, I matriculated in the Freshman Class in the College of Headaches, of which both Mr. Russell and I are now alumni, in 1933. I was rushed by the Omega Phi Omega fraternity the year before, and that was why I was induced to matriculate at all. Omega Phi Omega, you know, is the fraternity which stands for "Offset

Printers' Opportunities." That's a somewhat labored translation, but you get what I mean.

I must now make an honest confession, however, and admit that it wasn't so much the Omega Phis and their wonderful fraternity (as seen from the



outside) which finally made me decide to pledge up. No, it was the sheriff. I never was one to give up easily. I knew I had to do something or else

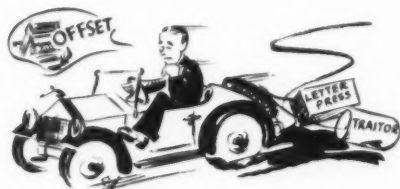
\*Name of company and address on request.



let the sheriff take over a small photo-engraving shop which I knew couldn't go along much longer on the pitifully small business it was then producing. So, I reasoned, why not go into the offset business and give the sheriff a whole lot more work when he came around, and I had a lot of new equipment and many more unpaid bills. Oh, I was ornery all right.

In that first year of the New Deal—Lord! how long ago *that* was!—you could buy anything easily. That fact, plus a survey I made of the possibilities of offset in our thriving little city, convinced me that it was worth a try. The letterpress printers did nothing but grouse. They seemed to display little initiative, and less vision. As a photo-engraver, my business was more or less dependent on theirs. I'll be dependent on no man, I said to myself. So I took a business trip to Chicago, listened while an offset press salesman told me all the wonderful things that could be done with offset, and signed on the dotted line. I was an offset printer!

Driving 500 miles back home, I had



plenty of time to think about what I had done. After 15 years in the photo-engraving business I had now turned traitor and deserted the letterpress industry. Maybe I felt a little sorry at what I had done, I don't know. If anyone were to suggest that now, though, I'd say "Nuts!" I know now, simply, that the letterpress industry had failed to grow and was lacking in the ability and the enthusiasm to promote itself. At least, that's the way it was in my neck of the woods.

But hold on—we're talking like a graduate when we were supposed to describe our experiences as a Frosh. Of course, the press was just the first of many expenditures. We bought and bought and bought. No use disappointing the sheriff. No use doing it half way. Give him a run for his money. So when we needed a new piece of equipment we found some way to get it, and we needed pretty nearly everything. Be-

sides the press we acquired layout tables, sinks, whirlers, frames, a cutter, a folder, camera, etc. All in all, it was quite a layout of modern, shiny, new machinery.

I'll never forget the day the press arrived. A letterpress operator had talked me into giving him the job of operator. Said he could operate anything with gears. I believed the guy. The press manufacturer had also said there was nothing to it. The press builder was on hand, too, and by the end of the third day he, and my operator and I had the thing going. But not for long. Before we even had a chance to put a plate on, my letterpress-offset press operator showed me how good he was by dropping a heavy screw driver between the blanket and impression cylinder. The press turned over once, groaned, grunted and stopped. The builder looked at me and I looked at him. The operator didn't look at anybody. He was looking at his feet. Nobody said anything. What the hell use was there?

I walked out of the shop and across the street to—well, you can imagine where I walked to. In an hour, seeing things in a little different light, I came back. The erector had the press about half torn down. The impression cylinder and the blanket cylinder both carried a beautiful round impression about  $\frac{1}{8}$  of an inch deep and about 4 inches long. Anything that you'd print would carry a lovely white streak through it. The novelty might appeal to some advertisers for a while, but I could see it'd soon wear off. The blanket was cut in shreds. The erector pattered around a while and finally came up with the news that it would cost about \$700.00 to get two new cylinders and rebuild the press.

Well, \$700.00 was as much as a million to me then. I was stony. So I borrowed an electric drill and drilled deep holes side by side along the channel and touching each other in both cylinders. I filled these holes with aluminum wire driven endwise, cut them off, and using



a soft scraper rounded the fill to the shape of each cylinder. Believe it or not, we never had to add an extra tissue to the blanket packing at this point during the entire time we ran the machine. If I do say so myself, that was a first class scraping job.

SINCE we were photo-engravers, we thought we knew something about making plates. We soon found out we knew nothing about making offset plates. Few engravers, at least so I have found it, are equipped in training and experience to make good offset plates. It is entirely a different technique to put a print on a plane surface which is *not* etched as an engraver understands etching. This technique begins at the camera and must be carried through every step of the operation up to the finished plate. Then the job is done, and you've got what you've got. In making letterpress plates you can do a lot of manipulating afterwards. Well, anyway, we had trouble. Walking, embossing our blankets—somehow the job of getting even as few as 5,000 impressions seemed impossible.

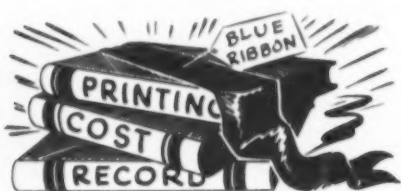
I don't know what are the most valuable qualifications for an offset printer to have, but patience and perseverance must rank pretty close to the top. We went along day after day, groping for a solution to this problem and that. It was a 24-hour day assignment. Somedays you'd want to throw in the towel. Sometimes you'd could begin to see light. But we had set a year's trial as our goal and we were not going to give up until then. Well, sir, at the end of that first year it became evident that we had made progress. Our total sales in that first year jumped from \$8000 in the photo-engraving business to \$27,000 in the offset business. We began to think maybe we're going to cheat the sheriff after all.

The most encouraging fact about that first year, however, was that, in checking the sources of our business, we found that 90 per cent of it we had created ourselves. We hadn't taken it away from some competitor. It had never existed, except potentially, until we had convinced the customer that we could turn out work a little differently, a little faster and a little better by offset. We sold ideas, not offset. Instead of waiting for printers to send us a few halftones

or zinc etchings to make, we went out and got our own business. We were on our own. It had always been a source of annoyance to have a printer give us a black eye with a customer by delay and buck-passing. This had happened frequently. It wouldn't happen again.

But here I am talking like a graduate again when as a matter of fact the hazing had only begun. There was the usual confusion about the use of the Union label where offset pressmen and letterpress operators work under the same roof. It took us some little time to get all of the details worked out to the satisfaction of everyone. I see no necessity for reciting the details here, because however it was settled, there will always be those who will disagree. It should be sufficient to add that the NLRB has never bothered us.

Slowly, by a process of trial and error, we began to find out the jobs that were naturals for offset and the ones we should let strictly alone. Short runs, letterheads and general job printing were not for offset, we found. So we concentrated on the others. Knowing the type of work we were best fitted to produce, we established a cost system. It was far from flawless, but it was



something to start with. In a short while we knew many of its weak points. We kept a unit time cost on all operations. We learned that makeready in lithography was just another name for press adjustment and feeder change, blanket change, register mark placement, ink manipulation, fountain adjustment, laysheet running for pull out, etc.

Being photo-engravers originally, we checked the actual cost of film negatives against the cost of finished photo-engravings. We found that up to the point of etching, offset reproductions cost just about the same as photo-engravings. But from this point on there is a saving. The offset plate etching process is a short one, while etching halftones on copper requires much more time. Etching line plates

on zinc also requires a longer time. We found, and I suppose we were lucky in this respect, that in order to produce good offset work you need practically all of the photo-mechanical equipment of a first-rate photo-engraving plant.

Well, to carry the College of Headaches analogy to its logical conclusion, we were freshmen in '33, sophomores in '34, juniors in '35 and seniors in '36. We had had our ups and downs, but all said and done, we had made progress during those four years. We were out of the pledge class and fully-initiated members of Omega Phi Omega. Neophytes no longer, we were allowed full use of the Chapter house. Most of the secret ceremonials of the fraternity had been discovered the hard way, and we were doing things with offset we had never dreamed we could do.

A manufacturer, for example, was giving us three to four million labels to print every now and again, and regularly. We were producing these labels on gummed paper, using gloss ink and bronzing. We were turning out more and more two, three and four-color jobs. We had, at the beginning of 1937, developed our offset plant to a point where we could look all our creditors in the eye. We didn't owe a cent. It looked as though the little engraving business had developed into something. We had graduated from the College of Headaches. We were full-fledged offset printers. We were sitting pretty.

Then the rains came.

**D**O YOU remember that January of 1937? Well, one day it up and rained and it never stopped for 21 days, including Sundays and holidays, if any. We are three short blocks from the Ohio River. Must I go on? When the skies cleared our offset plant—press, cameras, darkroom, platemaking equipment,

bindery, folders—everything, including several thousand dollars worth of printed work ready to be delivered, were under 13 feet of the muddiest, darkest, dirtiest water I have ever seen, or expect to see this side of the river Styx.

We chopped muddy ice three inches thick from the press. We couldn't even start to move the mud until we had built an addition to the plant to house the machinery while we tore it apart, cleaned it and re-assembled what was usable. The press was ruined, hundreds of dollars worth of plates were just so much zinc, and not good zinc at that. Oh, everything was a mess. And there were several thousand dollars worth of printing that had to be done over at our expense.

Should we start all over again? Or should we throw the old Omega Phi Omega fraternity pin into the mud and quit?

Well, you know what we did. Else I wouldn't be giving you this melancholy tale. We started from scratch, once again. We called in our friends and told 'em all we had left was the ability to smile—and pretty feebly at that—but would they—? They did and left with orders to equip a complete new offset plant. That was the early part of 1937. Here it is pretty nearly 1941. We're out of the woods once again. We have added two new presses during the past summer, and eternal optimist that I am, I believe 1941 is going to be the biggest year we've ever had!

Seven long years! When the flood came we were actually packing our grips for a trip to Florida, my wife and I. We never went. Maybe this year. Yes, maybe. You never know. But I do know this: like B. T. Russell I've earned my Omega Phi Omega pin and it's going to take a devil of a jolt that'll make me part with it!



MODERN LITHOGRAPHY

# The Salesman's Daily Report

**BY E. W. NOBBS\***

*Just as important as the salesman's daily call, declares this writer. It provides that basis for close cooperation between the sales staff and the office by which results are made sure.*

**T**HERE is a definite need for systematic, intelligent reports in order for a printing or lithographing salesman to do an effective job of selling. It is impossible for a sales-manager or the owner of a business to supervise or keep in contact with the sales force unless some systematic provision is made for securing informative reports from the salesmen.

While there are still a few sales managers who do not believe in reports and who claim that orders are the best reports, most modern printers and lithographers realize the necessity of keeping in close touch with the work of the individual salesman. At the same time the reports enable the sales manager or the owner to know just who the profitable customers are, and why some buy and others do not.

An effective system of reports properly handled by printing and litho salesmen and their supervisors is the foundation for sales methods that *will secure*

\*Manager, Printing Industries Ass'n., Los Angeles.

results far beyond the ability of any salesman who works without any definite plan or any follow-up system. It is not the right thing for a sales manager or owner to hire salesmen, even on a commission basis, and put them out on their own without any supervision, or any aid from the office.

We had a case which proved this just recently with one of our members. A certain salesman was not producing and was making no money for himself or his firm. He was out "on his own" and did not have to answer to anyone but himself. At the end of six months the boss called him in to find out what the trouble was. It was brought to light that the salesman had become discouraged. He felt that there was no use

to make many calls as business was poor anyway, and no one needed any printing, and he had lost his enthusiasm. The boss adopted a new system, demanded daily reports, found out when and where the salesman was calling, and by making a close study of the reports soon learned why the salesman was a failure. At the end of thirty days with the salesman reporting to the office daily on every call made, and with closer cooperation with the office and suggestions from the boss, this man was making a nice income and the firm had a real representative.

Salesmen will not rebel against making reports if they understand the reason for them. Experienced salesmen have little respect for a manager who

### SALESMAN'S DAILY REPORT OF CALLS

Salesman \_\_\_\_\_

(Salesmen keep duplicate)

Date	Customer	Address	Buyer	*Remarks	Sold	Call Again

\*Under remarks: (a) Sold this call.  
(c) Wants quotation.

(b) Bought from Competitor.  
(d) Will be ready on.....

(e) Quotation.  
(f) Misc.



does not have the courage and initiative to call for reports, to compile and analyze data from them, and then make their conclusions the foundation of policies. Salesmen like to think of their firm as being wide awake, as full of aggressiveness and initiative, and as constantly trying to improve its methods.

A system of reports is of value to the individual printing salesman entirely apart from the question of whether or not the reports ever find their way to the boss or head of the firm. The salesman who analyzes his work day by day and week by week is certain to develop a selling technique which results in sales. If he checks back over every sale and every failure to sell, if he makes a periodic analysis of his list of customers and prospects, he unconsciously adjusts himself to methods that have been effective and discards plans that have proved fruitless.

#### Principles of Report Construction

Two definite principles should govern the establishment of any system of reports. These principles are as follows:

(a) The required reports, whether daily or weekly, should ask for information which is of constructive value to the salesman and the firm. Any information that is of no use should be eliminated from the reports.

(b) The reports should require a minimum amount of clerical labor on the part of the salesmen.

Undoubtedly a tremendous amount of paper, time, and effort is wasted by salesmen every day in the year in making out useless and unused reports. A salesman as a rule does not object to making out the reports, but he does object to spending a lot of time in listing information that is useless. The reports should get at the pertinent facts and the salesman's interpretation of the reasons that lie behind them.

In most lines of business there is a surprising regularity in the proportion of sales to calls. In selling printing there is greater necessity for planning each call in advance than in most other lines of business, although a certain number of calls must be made every day if a proper percentage of business is to be expected.

#### Salesman's Daily Report of Calls

The form shown is self explanatory and can be changed to fit the need of any individual printing or lithographic

INDIVIDUAL CUSTOMER'S RECORD		
Customer _____		
Address _____		Buyer _____
Date	Remarks	Call Again

establishment. The information called for furnishes a basis for judging the effectiveness of the salesman's presentations. The report shows the date of call, number of calls made, firms called on, name of the individual contacted, whether an order was sold, and place for notation of the probable time when the prospect will be ready for printing in the future. Under the heading "Remarks" complete information should be given about the call made; if an order was secured the specifications should be listed; if no order was secured the reasons why should be given; needs of the customer; whether a quotation was given and if so the specifications and the price; if an expected order was lost, the details of why it was lost; and any other information that will be of value for future dealings with this customer.

Every salesman should keep an in-

dividual record of every one of his customers. This record should give a history of past dealings with this firm and any information of value for securing future business.

#### Individual Customers Record

The main purpose of this "Individual Customer Record" is to help the salesman keep track of sales made in the past, and know when the customer will be in the market for future printing. This record also shows the salesman when he last called on the customer and reminds him of what took place during the interview. This record can be printed on a 4 x 6 card. This individual customer record is self-explanatory but it should point out the need for each salesman to make a special study of every one of his customers, what they need in printing, when they will need it, customers' likes and dislikes, whom to see, and a history of all past sales.





# Offset paper at work

Another in the series on offset paper by Mr. Wheelwright, editor of "Paper & Printing Digest" and author of "From Paper Mill to Pressroom." He is a member of the Technical Association, Pulp and Paper Industry, and also of the American Institute of Graphic Arts.

**BY WILLIAM BOND WHEELWRIGHT**

**N**OW that winter's here, the seasonal difficulties associated with high humidities give way to those induced by low outdoor temperatures. Most paper mills are located far from the printing centers, so in cold weather paper in transit gets chilled, and to a certain extent frozen. Then it is brought into pressrooms where the temperature is many degrees higher. It may take two or three days before an average skid of paper thoroughly chilled is raised to the indoors temperature. If it is used before that, trouble is apt to occur. This may result from condensation of moisture on the opened pile of paper, or from static electricity which is more easily induced by handling cold paper, especially in an atmosphere deficient in moisture.

Cold paper in a warm pressroom is not in normal condition any more than a human being suffering from chills and fever. In the latter case the nurse shoves a clinical thermometer into the patient's mouth but in the former similar tests are seldom made. Yet instruments exist which will help to diagnose the ailment.

In the August 5th issue of *Paper & Paper Products* (page 13), the new "Paper-Temp," developed by the Perfecting Service Corporation of Chicago to help the printer eliminate losses from paper spoilage due to temperature dif-

ferences, is described. It closely resembles the "sword hygrometer," with which most lithographers are already familiar. Instead of indicating the moisture content inside the pile of sheets it tells the temperature there. It would appear to be a useful addition to the instruments upon which precision printers depend.

The discrepancy between indoor and outdoor temperatures is not easily realized without a study of records accurately kept. Such a record may be found in the 1935 Annual Report of the Public Printer at Washington, which was reprinted on page 49 of my book, *Printing Papers*.

Washington is a temperate locality, yet the average temperature for the year 1935 was 80.7 degrees indoors, and 56.1 outdoors. The lowest outdoor average for one month occurred in January when it was 32.3 Fahrenheit. This discrepancy was accompanied by a similar condition of relative humidity. The average indoor relative humidity for the year was 36.4 per cent, and outdoors, 63.2 per cent. These two variable factors are responsible for most of the pressroom trouble with paper. The Technical Director of the Government Printing Office attributes two-thirds of the trouble to relative humidity, and of course there is a definite relationship between relative humidity and tempera-

ture. Hence it behooves printers to pay closer attention to both phenomena.

It was my good fortune last year to be able to reproduce at will the weather conditions which cause so much trouble. At the laboratories of the Industrial Training Corporation of Chicago, where 18,000 students annually are instructed in air-conditioning and refrigeration, I was permitted to experiment. The school had a cold storage room where the temperature was kept at 15 degrees below zero, and the relative humidity was 33 per cent.

An adjoining room was air-conditioned and the temperature was 70 degrees with relative humidity maintained at 65 per cent.

I stored several reams of paper for twenty-four hours in the cold room. The sheets laid perfectly flat without any wavy edges or cockling, but immediately on being moved into the warm, air-conditioned room visible drops of moisture condensed from the air gathered all around the edges of the pile. It could be wiped off like perspiration. The effect on the edges of the paper was easily observed for the moisture penetrating into the fibres soon developed wavy edges and the cockling across the grain was very pronounced.

An even more striking demonstration of the hygroscopic properties of paper was produced when the paper was finally placed in a small compartment, where a relative humidity of 8 per cent was artificially maintained. The water which had been penetrating the sheets reversed its flow into the dry, absorbent air. The top sheets curled into a tubular formation due to the rapid desorption.

Thus, in an exaggerated way, the behavior of cold paper suddenly brought into a warm room of distinctly higher relative humidity, and the subsequent effects of exposure to a low relative humidity was dramatically demonstrated. The same action in modified form is what happens whenever cold paper is exposed in a warm pressroom. The experiment graphically proved the rule that paper is in an unstable condition not only when its moisture content is out of equilibrium with the relative humidity of surrounding air, but as long as the temperature of the sheets is different from that of the work-rooms.

(Turn to page 53)

# Offset press operation

Another in the series on pressroom problems by Mr. Latham, well-known writer, lecturer, authority and trouble-shooter.

BY C. W. LATHAM

THE INK fountain consists primarily of a reservoir, a blade, a roller and a means of adjusting the flexible blade in such a way that a variable-width aperture is formed between the blade and roller. It is adjusted by means of a series of thumb screws acting upon the blade at intervals of two inches or less throughout its entire length. A further means of adjustment is the roller speed which is controlled by a ratchet and trip dog.

The invention of the ink fountain was one of the great steps forward in the art of lithographic printing, and is more necessary today than ever before due to the size and speed of our presses. It provides for uniformity of ink deposit throughout thousands of impressions, and it relieves the pressman of a job that would take every minute of his time if he were to try to feed ink to the rollers with a hand knife. However, in spite of the fact that no pressman can feed ink to the rollers with uniformity, and has not the time to do it anyway, many still insist upon making ready with the use of an ink knife. This is wrong.

During makeready, more than at any other time, the pressman should refrain from putting ink on the rollers with the ink knife. Makeready is the time to set and adjust the ink fountain, and not during the running of the first one or two thousand sheets of the job. When the plate is on the cylinder, the feeder

and delivery set, and the ink has been put into the fountain, that is the time to make the first adjustment. This can best be done by starting at a known point. One good way to start is to screw up all of the thumb-screw adjustments until the blade contacts the roller throughout its entire length with a light contact, and then, with the ductor away from the fountain roller, turn the fountain roller with the hand lever until it brings up ink and gives a visual indication of how the fountain is set. If any dirt has lodged between blade and roller, it can be detected now and removed.

Now start the press and watch the plate. Adjust the first screw to the best of your judgment, in relation to the amount of work that appears upon the plate directly under that screw. Until one becomes adept at judging how much to open up the fountain for a certain amount of work on the plate, it may be well to use the proportion of one-half turn of the screw to one-quarter of the plate. In other words, where the work on a plate covers one-quarter of the distance around the plate, the screw above that portion may be opened one half-turn. Where the work amounts to almost nothing, the screws may be left in their closed position and where the work covers practically the whole circumference, the screw should be opened four half-turns.

With the entire fountain now set by

this "counting the turns" method, stop the press with the ductor out of contact with the fountain roller and again turn the roller with the hand lever. Now with the edge of the knife, scrape a flat furrow across the top of the roller, which will give a visual indication of your new setting. Now start the press again and compare the relative weight of ink on the various parts of the roller with the amount of work on the plate coinciding with these parts. If the proportions look about right, ink up the press by use of the hand lever, letting the fountain do all of the inking. Do not try to speed things up with the knife. Avoid overcharging the rollers as time will be lost in sheeting off excess ink. When the rollers seem nearly fully charged, put the dampeners in condition if you have not already done so, here again being careful to avoid overcharging, then wash off the plate and ink it up thoroughly.

Proceed now with the other steps of the makeready such as getting the lay of the sheet, adjusting the guides, checking fit, etc., keeping an eye always on the ink adjustment. There should be enough blank sheets distributed throughout your waste sheets to give an occasional indication of your fountain setting. If these sheets show a tendency to get stronger progressively, then take a notch off the ratchet or vice versa. If they show weakness or strength in one area only, make the necessary adjustment to the fountain screws.

Do not wait too long in checking up on the cleanliness of your press. Tap out a sample of ink taken directly from the fountain, and compare it with one of the printed blanks for color. A poor washup will often change the color of a delicate tint to such an extent that another thorough washup is necessary. If the printed color is clean and satisfactory, send it in to the artist to see if he has any comments to make before you progress too far in your makeready.

During the makeready it is generally necessary to stop the press several times in order to make certain adjustments. Do not make the mistake of failing to gum the plate in order to save time. The risk of oxidation is too great. In gumming a plate, there are several rules to follow. One is to use fresh and properly thinned gum. Too thick a mixture is injurious to the plate and may cause gum streaks. Another rule

is to carefully smooth down the gum to a thin film after applying it, or gum streaks will appear. The third and most important rule is never to gum a plate until it has a good healthy deposit of ink upon the image. When a running press trips off, the plate has only a thin film of ink on it, an insufficient amount to protect it from the action of the gum. It is good practice to drop the rollers for two or three revolutions of the cylinder before stopping the press and gumming the plate.

Returning now to the ink fountain, we find that by the time everything else in the makeready has been taken care of, the fountain is practically set, and you know that whatever slight inaccuracy remains is due wholly to the fountain adjustment and not to dabs here and there that have been made with the knife and are not stable. The result you now see upon the sheet is a perfect picture of your fountain setting and you may chart your course from that point.

You are now ready to run a few good sheets. You may find that the ink is a little spare at one point. The sheets cannot be run until that point is brought up. Changing the fountain and running enough waste sheets for this change to become effective is a waste of time, so now for the first time the knife is used.

The rollers are up, the fountain is off, and a carefully judged amount of ink is applied to the rollers where needed and the press allowed to run six or eight revolutions to allow this added ink to catch up with the satisfactory portions. The fountain is then opened up to what is thought to be the necessary amount and the sheets run.

After the O. K. has been obtained, there is plenty of time available to the pressman which may be devoted to further correcting the ink fountain. Blank sheets distributed throughout the first five hundred prints are of great help, as variations may often be detected more quickly by comparing blanks.

**A** SENSIBLE balance should be maintained between the two adjustments of the ink fountain, namely the thumb screws and the roller ratchet. On a normally full plate, where the images constitute about half the area of

(Turn to page 53)

# Technical news and Literature

This is a regular department conducted by Mr. Martin, of the Harold M. Pitman Company, in which technical books, articles, papers and similar literature of interest to the lithographic industry are reviewed and discussed. It is intended as a supplement to the Lithographic Abstracts prepared by the Research Department of the Lithographic Technical Foundation, Inc.

**BY KENNETH W. MARTIN**

**U. S. Patent No. 2,214,950. Planographic Printing Plate. Claes Borge Aller, Copenhagen, Denmark, September 17, 1940**

**A** PLANOGRAPHIC printing plate comprising areas of a metal capable of receiving printer's ink and areas of an ungrained metal capable of refusing ink, said areas consisting of different metals, the ink refusing areas consisting of a substance selected from the group consisting of stainless steel, chromium, and chromium alloys.

The preferred method of obtaining such a printing plate consists of preparing a sheet of stainless steel or chromium by coating it with a thin layer of copper. The copper may be deposited electrolytically (electro-plated) or it may be sprayed on or deposited chemically. The areas which are not to print may then be etched away completely so that the printing areas consist of the deposited copper in slight relief on a base of chromium or stainless steel. It is also possible to use a base of ordinary steel on which is first plated the chromium ink resisting layer. The copper layer may then be applied and etched away in the same way as if the base metal were solid.

The advantages claimed are that the printing plate so obtained is very durable, that it is never necessary to gum

the plate during the time that the press may be stopped, that the work may be removed and the plate prepared for new work merely by etching away the copper areas and re-plating and that no grain is necessary as the water receptive areas are naturally so and do not require roughening.

*Comment:* Aller's patent applications were made in Europe some years before they were made in this country and as a result we should know by this time whether or not the ideas contained in the patent are likely to be adopted. Unfortunately, news from Europe these days is more likely to be concerned with destruction in general than with lithographic novelties. Even before the outbreak of hostilities, however, the idea of a bi-metallic lithographic plate had begun to take hold. One of the first involved the use of lead as the ink refusing metal, and copper dots and lines on an aluminum base were used in Germany no less than five years ago for publication printing in the lithographic manner. In this country it is not yet clear that very long-lived offset plates are much wanted.

While the use of lithography is increasing, it would seem as if improved methods of producing plates might be put off until the technique of press

(Turn to page 51)



# Offset Seen As Stabilizing Influence in American Life

By H. A. PORTER

Vice-President, Harris-Seybold-Potter Co.

AT THE outbreak of the first World War, lithography was in the category of non-essential industries. It was considered quite reasonable then that the older and more familiar methods of putting ink on paper were sufficient for the needs of business. Thus, the comparatively new and often misunderstood process of offset printing came in only to confuse, rather than assist, commercial and industrial promotion.

However, the fundamental advantages of offset—advantages which have won it universal acceptance and use—soon came to be so strongly felt that the classification of non-essential was thrown out, and the use of offset encouraged by the very ones who thought it a burden in the beginning.

The use of offset in the production of an increased volume of printing soon disproved any belief that the method was either a substitute, or a purely competitive printing process. Much credit, not ordinarily given to offset, is due this method for spreading effective good will and patriotism among the American people during those trying years from 1917 to the conclusion of America's participation in the European conflict.

Another bitter war is now raging across the Atlantic. The powers which can influence victory and peace for free thinking peoples are directing every effort toward making the conflict end in peace for everyone—both the victor and the vanquished. World opinion may be divided as to the philosophies back of the war, but no one questions the need for better understanding of causes and results.

One factor which can certainly help towards a better understanding is offset lithography. In it can be found the essence of quality which wins both attention and conviction. Since there is

a way of life which supports peace and individual freedom, that way of life can be sold to a world of confused



H. A. PORTER

peoples through the wide distribution of attractively prepared printed material.

It is the responsibility of the lithographer to help American business tell a positive story. It is up to the lithographer to point out the deep significance of offset as a pictorial medium, an influence that can and will win millions to the American way of progress. To win these people is, of course, to turn their attention away from ideologies of destruction and conquest.

Offset is today telling a significant story of transportation with such beauty and force as to make peace and freedom a thing without price. Through its use in the production of children's books, offset brings old and tested tenets of honesty into a clear and understandable picture. Education, both intellectual and physical, is tied to our daily lives through the wide distribution of lithographed material describing the advantages of new equipment, new ideas and new applications.

Offset, the newest of the three print-

ing processes, is also the most effective when used on the jobs for which it is best adapted. Its power to reproduce in faithful colors the many typically American advances in science, industry, transportation, education, agriculture and business is clear evidence of its place in our life.

It is our responsibility that these essential facts be told to business. Even though we are in manufacturing, production or selling, it is still our plain responsibility to use offset in these trying times to advance not only our interests in lithography, but also those interests in American principles which permit us to live and work in free enterprise.

An extreme shortage of paper has delivered almost a knock-out blow to the British lithographic trade, according to an article in the Autumn issue of *Paper and Print*, English trade journal. Entitled "Lithography After a Year of War," by Noel Montague, the article describes how customers have been pressing printers to undertake their work, and that while printers are only too anxious to, the paper is lacking. Restrictions on the size of poster printing, and difficulties in obtaining certain inks have severely curtailed the poster end of the trade. To prolong the life of posters, the practice of varnishing them after they have been pasted on billboards has been adopted, said the article.

While the price of paper has been controlled by the government, prices of many other lithographic necessities have been increased greatly, adding to the war-time difficulties. These include zinc, marbles, graining grit, sponges, paraffin and rags. Aluminum supplies are unobtainable. Substitutes for German everdamp transfer paper have been developed. As far as the supply of craftsmen is concerned, the article says that there has been a surplus of lithographers in England ever since the evacuation of Dunkirk. It concludes by saying that while "the lithographic trade has been severely punished, it is far from dead. It remains for all members of the trade to see that it does not perish from lack of interest."

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## IN AND ABOUT THE TRADE

### William A. Albers Dies

William A. Albers, 44, superintendent of Korb Lithographing Co., Cincinnati, died last month. He had been identified with the Korb Company for over 25 years.

### Lithos Attend Drum Dinner

Lithographers took a prominent part in a dinner given at the Lotos Club, New York, November 14, in honor of General Hugh A. Drum, commander of the First U. S. Army. Seated at the speakers' table was General William Ottman, chairman of the board of U. S. Printing & Lithograph Co., Brooklyn, recently appointed commander of the New York Guard by Governor Lehman. Tables were taken by three other groups of lithographic executives, including R. R. Heywood and R. R. Heywood, Jr., of R. R. Heywood Co.; J. L. Murphy and J. A. Voice, of Consolidated Lithograph Co.; Charles P. Schmid of Trautman, Bailey & Blampey; Anthony J. Math, of Sinclair & Valentine Co.; and Alfred Rode, of Rode & Brand Co. General Drum's address on "Building an American Army" was broadcast. It was followed by a program of musical entertainment.

### Eastman Gives Bonus

Directors of Eastman Kodak Co., Rochester, N. Y., declared a wage dividend last month of approximately \$2,625,000 for employees to be paid March 24, 1941. Those eligible for the wage dividend are regular Kodak employees who are at work March 24 and who have worked all or part of 26 weeks during 1940. The 1941 payment to workers will exceed the 1940 dividend by about \$250,000, it was said.

### New Offset Magazine

A new lithographed magazine, the first number of which appeared in November, is being published on the West Coast for the packaging trade. Named *Good Packaging*, the new periodical is to be published monthly by Dean & Patterson, Ltd., San Francisco. The

first issue contains 54 pages and carries the advertisements of three prominent west coast lithographic houses.



EDWARD T. SAJOUS

... recently appointed executive secretary of the Point-of-Purchase Advertising Institute, New York. Mr. Sajous comes to his new post from General Foods Corp., where he was sales promotion manager and handled all activity pertaining to retail store promotion, including display material, for all products. He has also been assistant to the promotion manager at Johns Manville, secretary of the Southern Calif. Retail Stores Assn., and a member of the staff of Fairchild Corp.

### Goerz See No Lens Shortage

Although the import of photographic lenses has been almost completely arrested due to the war, there is no real shortage in the United States, announces C. P. Goerz American Optical Co., New York. The demand for lenses has been filled by American manufacturers who are taking over much of the business formerly handled by imports from Germany. The Goerz Company recently distributed mailing pieces with a Christmas flavor, featuring "Dagor" and "Dogmar" lenses.

### Issues Report on Exhibition

The Lithographers National Association has just issued a twelve-page report on "Living Lithography," the national exhibition which was recently held in Philadelphia. The report opens with a transcription of "I am the Voice of Lithography" from the phonograph record made by David J. Finn, advertising and sales promotion manager, RCA Manufacturing Co., for the Printing and Advertising Clinic held in Philadelphia during the Exhibition at the Art Alliance. It includes brief discussions headed as follows: The Background, The Show, Promotion—Local and National, Special Events, Medals of Achievement, Publicity, Dividends and Noteworthy. Copies of the report are available on request.

### S. & V. Celebrates 50th Year

Mrs. Jennie H. Sinclair, widow of Frank McDonald Sinclair, one of the founders of Sinclair and Valentine Co., New York, was hostess last month to five hundred employees at a group of banquets throughout this country and Canada commemorating the 50th Anniversary of S. & V., and in memory of her husband.

Francis McDonald Sinclair and Theodore Searing Valentine, the founders, started in the ink manufacturing business with a small plant on Baxter Street in New York in 1890. From this small beginning the company now has seventeen direct factory branches and five agencies from coast to coast and in Canada.

The banquets in New York were held at Cavanagh's Restaurant and the Cornish Arms Hotel. Mrs. Sinclair attended the banquet at Cavanagh's in the company of the officers, directors and executive staff of the organization, together with their wives. Among those in attendance were R. R. Heywood, president; A. J. Math, executive vice-president and treasurer; Arthur J. Mahnken, vice-president; Samuel Wasserman, secretary; and H. H. Desmond, assistant secretary.

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### Govt. Seeks Printers' Help

Under the direction of A. E. Giegengack, public printer, the Government Printing Office, Washington, is attempting to mobilize the printing industry in large graphic arts centers for the purpose of giving the government a hand with the national defense program. F. G. Rudge, of Wm. E. Rudge's Sons, New York, has been named vice-chairman of the Advisory Committee. Closely cooperating with him are S. F. Beatty, secretary, Chicago Graphic Arts Federation, and Don H. Taylor, executive vice-president of the New York Employing Printers Assn., Inc. Acting as liaison officers between the government printing office and printers throughout the nation, the Advisory Committee will contact establishments in a position to handle government work. Whenever it is deemed advisable to have a job printed in a particular area, those firms best equipped to handle the type of work involved will be invited to submit bids on specifications, it is announced.

### Litho Club Hears Leckey

M. J. Leckey, research chemist for Sinclair & Valentine Co., New York, was the guest speaker at the November 25 meeting of the Philadelphia Litho Club. Mr. Leckey spoke on "The Drying of Litho Inks." The S. & V. motion picture "Serving the Graphic Arts" was shown following the talk.

### IPI Contest Judges Announced

Harry L. Gage, Mergenthaler Linotype Co., Brooklyn, has been chosen to serve as chairman of the jury for this year's International Printing Ink Essay Contest. Other judges who will help select the prize-winning essays written by school students on the subject "Printing—The Safeguard of Democracy" are: Walter B. Reilly, president of the UTA; Frank McCaffrey, president of the International Association of Printing House Craftsmen, Inc.; G. Lynn Sumner, president of G. Lynn Sumner Co.; and A. E. Giegengack, Public Printer of the United States.

### Rare Prints Exhibited

Chicago lithographers had an opportunity to brush up on litho history at an exhibit of original prints and rare books covering the first forty years of lithog-



Hundreds of inquiries about New York City printing were inspired by the display of the New York Employing Printers' Association which was on exhibition during the major part of last month in the window of the New York City Information Center at Pershing Square. Officials at the Center described it as one of the most successful, from the point of view of the crowds it attracted, of any that has ever appeared in the window.

raphy, staged by the Chicago Art Institute last month. Among the prints on view were examples of early German, French, English and American lithographs, selected from the Institute's permanent collection of 50,000.

Among the books shown were a first edition of Senefelder's "Complete Course in Lithography," published in German in 1818, a first English edition of the same work, Godefroy Engelmann's "Report of My Method of Color Lithography," Engelmann's "Practical and Theoretical Treatise on Lithography," published in 1839, and various other rare volumes illustrated in color and printed by stone lithography.

### Heitkamp Addresses N. J. Group

The national defense program has already been responsible for an increase of about 30% in the demands upon the productive capacity of the printing equipment industry, according to Frederick B. Heitkamp, vice-president of American Type Founders Sales Corp., Elizabeth, N. J., in an address commemorating the 500th anniversary of printing, held at Elizabeth, N. J., last month. Emphasizing the vital import-

ance of printing in the national defense program, Mr. Heitkamp predicted that an increase in printing orders for private accounts is also likely. He said that as a result of the present situation, the graphic arts might have an opportunity to escape from the buyers' market in which it has been involved, and bring profit margins back to normal.

### Craftsmen Appoint George

Andrew J. George, of Schmidt Lithographing Co., San Francisco, has been appointed to the educational commission of the International Association of Printing House Craftsmen. The commission circulates information concerning new processes among its 6,000 members.

### Chicago Lithos Hear Mack

Norman A. Mack, of Maklin Lithoplate Graining Co., Chicago, was the principal speaker at the Chicago Lithographers Club meeting last month. His topic was "Relation of pH Control to Plate Troubles." In the absence of President Frank Hohegger, who is vacationing on the Pacific coast, Albert Brinkman, club vice-president, presided.





"So I Sez . . ."

By FRANK SCHERSHEL

*U. S. Camera Annual, 1941, came off the press early this month with the finest collection of photographs in its history. Edited again by T. J. Maloney, with Edward Steichen as judge of the outstanding prints of the year, it appears in two big volumes, a pictorial chronicle of what is generally considered one of the most significant and advancing art forms of our time. The three prints shown on these pages, plus the one on the cover, represent a cross-section of American photography in the current year.*

FACE IN WINDOW  
*By*  
NORMAN LINDBLOOM



HARLEM STREET  
*By*  
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pH CONTROL	

MODERN LITHOGRAPHY'S "Where-to-Buy-It" directory appears monthly. Consult it when you're in the market for new equipment and supplies.



### Tells Traung Twins' History

The biography of the Traung twins, Charles and Louis, "Pioneers in Four-Color Lithography," is told by Frank McCaffrey, president of the International Association of Printing House Craftsmen, in a 16-page lithographed insert in the October issue of *Share Your Knowledge Review*. Lithographed in four colors, the insert is an attractive tribute.

### Milprint Exhibits Labels

Milprint, Inc., Milwaukee, exhibited its line of lithographed labels for canned meat and other food products at the Institute of American Meat Packers convention in Chicago recently. The concern's line of cellophane and pliofilm food wrappers was also on view. J. A. Baker, manager of the sales department's meat packers division, was in charge of the exhibit.

### August Hormel Dies

August Hormel, 71, vice-president of National Standard Co., and division manager of Charles Wagner Litho Machinery Co., Hoboken, N. J., died recently. Mr. Hormel was born in Germany and came to this country at the age of 14. He joined with Charles Wagner in founding the Hormel-Wagner Co., a general machine shop in New York City. In 1915, this business was dissolved and the Charles Wagner Litho Machinery Co. took its place. Mr. Hormel was made secretary-treasurer of the new corporation. Charles Wagner Litho Machinery Company moved to Hoboken in 1920 and from that time on devoted its entire production capacities to the manufacture of metal decorating equipment. Mr. Hormel was instrumental in pioneering many of the present-day developments in metal decorating equipment.

### Outdoor Elects Donnelly

The Outdoor Advertising Association of America, meeting in Chicago last month, selected E. C. Donnelly, Boston, as president for the coming year. Mr. Donnelly is president of John Donnelly & Son, well known New England outdoor advertising service agency. Frank Dunigan of Brinkman Corp., Fort Wayne, Ind., was elected vice-president; J. B. Stewart, Clinton, Ia., secretary and treasurer; and H. E. Fisk, Chicago,

was retained as vice-president and general manager.

B. W. Robbins, of General Outdoor Advertising Co., Chicago, was reelected chairman of the board, and Harry Crawford, of Crawford Advertising Service, Mobile, Ala., vice-chairman. New board members include President Donnelly and Howard H. Kerwin. Los Angeles was selected for next year's meeting, which will be the Association's golden anniversary. Lithographers exhibiting at the convention trade show were R. R. Donnelley & Sons Co., and United States Printing and Lithograph Co., both of Chicago, and Gugler Lithographic Co., Milwaukee. West Virginia Pulp & Paper Company displayed its line of paper stock for posters, and backing papers for billboard use.

### Cincinnati Offers Litho Course

A course in advanced lithography has recently been established at Printing High School, Cincinnati, through the cooperation of Local No. 8 of the Amalgamated Lithographers of America. Instructor of the Saturday morning class is F. G. Baum, formerly with Fuchs & Lang Mfg. Co. and now with Schwarm & Jacobus, Cincinnati ink manufacturer. The course will stress modern methods of platemaking and photographic processes.

Raymond E. Reynolds, foreman of the offset department of Uniform Printing and Supply Co., Chicago, died last month. Mr. Reynolds, who was 45 years old, had been connected with the company for twenty-four years.

The new General Electric retail sales presentation on automatic heating, consisting of 108 pages, lithographed in full color and duotone, was produced by National Process Co., New York. The presentation was lithographed in five colors from deep-etch plates and printed on a special 100 # special finish offset stock.



## NEW EQUIPMENT AND BULLETINS

### Hopper Issues Portfolio

Hopper Paper Co., Taylorville, Ill., distributed to the trade last month a portfolio presenting its complete line of offset papers for lithography. Page size of the promotional piece is 16 x 20 inches. A 400 lb. 2-ply offset paper is used to carry the illustrations, one to a page, reproduced from Kodachromes originally made to promote services of Transcontinental & Western Air, Inc. Lithography in four colors was by the R. M. Rigby Printing Co., Kansas City.

### New Pease Calendar

C. F. Pease Co., Chicago, with the cooperation of Warner Bros. Pictures, Hollywood, has just issued a handsome 1941 calendar with glamorous photographs of some of Hollywood's leading motion picture actresses. By using photographs taken by the popular Hollywood photographers, Hurrell and Welbourne, the Pease calendar has maintained a dignity and at the same time provided the necessary "oomph" to make the calendar a "stand-out." It consists of 13 pages, each page lithographed in two colors in a series of four pleasing color combinations. A different Hollywood star and a different Pease product appear on every page, with a large easy-to-read calendar of the current month. Copies are available on request.

### Develops New Repro Process

Frank Miller, formerly of Eastman Kodak and American Colortype Co., has developed a system for improving Kodachrome reproduction, he announces. He points out that Kodachrome has a 300-to-1 brightness range which must be compressed to the 50-to-1 brightness range of printed reproduction, usually done by reducing picture contrast. However, this also reduces color contrast or richness. By using Miller's "chromatic impedance" system, it is claimed that separate control over picture contrast and color contrast permits the necessary dropping of picture contrast without reducing color richness.

This development is available in Chromura Print from Kodachrome made by Photochrom, Chicago.

### Folder on Plate Variables

"Longer Life for Plates," is the title of a folder just published by C. W. Latham, of Brooklyn, N. Y. The resistance of the plate metal, the thickness of the coating, proper tanning, acidity of the water fountain, blanket rub and excess pressure squeeze are discussed as important variables which determine the life of a plate. Suggestions are given for overcoming difficulties. Copies available.

### New Book on Kodachrome

A new, revised edition of "How to Make Good Color Prints from Kodachrome" by Thomas S. Curtis, of Huntington Park, Calif., a book of pointers on the making of color separation negatives and color prints from Kodachrome, has just been published. Copies are fifty cents each.

### Prepares Blotter Series

Peoria Blue Print & Photopress Co., Peoria (Ill.), litho concern, has just produced a series of twelve lithographed blotters for distribution to business prospects. The blotters, with good copy, are lithographed in four colors. They make an advertising message which remains on the prospect's desk throughout the month. Rex Howard, president of the company, has the plates on hand and says that he would be willing to send any lithographer interested samples with prices for desired quantities. If you are interested in a lithographed blotter in four colors for promotional work we suggest you take advantage of the copy slants on this colorful series.

### Describes Service

Barrett Bindery Co., Chicago, has just issued a 42-page booklet with illustrations and technical data describing its die cutting and general finishing services for lithographers and printers.

The new ink research laboratory recently constructed by H. D. Roosen Co., Brooklyn. Designed to serve both letterpress printers and lithographers, the new department is under the supervision of I. M. Bernstein, of long experience in both the scientific and practical phases of ink manufacture.



MODERN LITHOGRAPHY

### Cupples Hesse Mailing Piece

Cupples Hesse Envelope & Litho Co., St. Louis, recently sent out an interesting mailing piece in the form of a folder lithographed on two sides in two colors enclosed in a cellophane envelope. The folder, which created a definite interest and appeal, told of the four divisions of the company's manufacturing operations: envelopes, tags, food cups and glassine and cellophane bags, all lithographed products.

### "Vari-Typer" Catalog

A catalog illustrating and describing the "Vari-Typer," the electric office typewriter with a wide selection of changeable type faces, has just been issued by Ralph C. Coxhead Corp., New York. The "Vari-Typer" is described by the manufacturer as an economical method of composing master copy for photo-offset reproduction for books, catalogs, manuals, school papers, etc. Certain models are designed for composing copy with a justified, or even, right-hand margin. More than three hundred type faces can be used in the composing typewriter, some of them made especially for offset reproduction, according to information in the catalog.

### To Hold Litho Show

The Oklahoma WPA Art Center, Oklahoma City, will hold its second annual exhibition of lithography from December 8 to 31. Black and white lithographs by living American artists will be shown. The print which is judged best in the exhibition will be awarded a \$50 cash purchase prize. Two purchase prizes will also be offered.

### Bulletin on Dehydrators

Carrier Corp., Syracuse, N. Y., recently published a bulletin describing self-contained dehydrators used for drying or dehumidifying in industrial air conditioning. The dehumidifying is accomplished, according to the bulletin, by the dehydrating quality of silica gel which is said to absorb 40% of its own weight in moisture with no physical or chemical change. The new type of equipment is of the greatest value, according to the literature, where it is desirable to maintain

humidity conditions independent of dry bulb temperature, and where it is essential to provide a precise control of the moisture contained in air surrounding industrial processes. The self-contained dehydrators are available in three sizes. Complete information is contained in the recently issued bulletin.

### Recommend Varnish Standards

A committee of the New York Printing Ink Production Club recently submitted a report on an investigation of lithographic varnishes in which recommendations were made for standardization. Emphasizing that the designation of varnishes by varnish numbers has resulted in ambiguity, the committee recommended that varnish makers standardize their products on the basis of viscosity as measured in poises at 25 deg. C. In the survey it was found that an extreme lack of uniformity existed today between the properties of varnishes manufactured by different companies and sold under the same designation. For example, varnishes sold as #00 had viscosities ranging from 4.78 up to as high as 57.1, #2 varnishes varied between 25.9 and 93.7 poises, while a similar condition existed for the remaining numbers. Basing their calculations on current practices in the industry and logical spacing of viscosity differences, the following recommendations for viscosity standards were proposed.

#00000	2.0 poises
#0000	3.0
#000	4.5
#00	7.0
#0	12.0
#1	20.0
#2	30.0
#3	60.0
#4	100.0
#5	150.0
#6	200.0

(allowable variation of 5 per cent)

### Eye's Color Reaction Explained

The eye does not focus the same to all colors, some colors tending to appear near or far depending on their quality, according to information published recently by the color research department of Eagle Printing Ink Co., division of General Printing Ink Corp.,

New York. Red rays are refracted less than the rays at the blue end of the spectrum when they enter the eye, which means that red normally focuses at a point behind the retina and in order to see it clearly the lens of the eye magnifies it slightly, while blue normally focuses in front of the retina and the eye acts as a reducing glass to see it clearly according to the research bulletin. This gives red a larger apparent size, and blue a smaller size. In printing design, it is pointed out, warm colors should be featured as appearing nearest the eye, with cool hues for backgrounds, to compensate for the optical illusion.

### Offers Ink Chemistry Course

A two-year course in printing ink chemistry, beginning in 1941, is planned for the Evening Classes at the Cincinnati University by the newly re-organized Cincinnati Association of Ink Manufacturers, in cooperation with the National Association of Printing Ink Manufacturers.

### Original Harris Replaced

A new Model LSQ 26x40 Harris press has just been installed in the plant of Republic Bank Note Co., Pittsburgh, to replace the original Harris Offset press which has been in continuous service at that plant for the past thirty-four years.

### Describes Dermatitis Cream

Magnus Chemical Co., Garwood, N. J., has issued a folder describing its product, "Magnus Skin-Gard," a cream which when rubbed into the skin is said to protect it against chemicals. The cream is recommended by the manufacturers to prevent industrial dermatitis.

### New Rutherford Folder

Rutherford Machinery Co., division of General Printing Ink Corp., New York, has just issued a new illustrated folder describing the Rutherford Precision Photo-Composing Machine. Stressed as outstanding characteristics are speed, precision, accessibility and safety. The folder is illustrated with close-ups and isolated photographs of various sections of the Rutherford Machine.



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**WE SPECIALIZE IN  
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Color strength and brilliance plus uniformly good press working properties make Sinclair & Carroll inks the choice of leading lithographers throughout the country. In pressrooms, large and small, these inks are winning new friends and proving their all around dependability.

Sinclair & Carroll inks are carefully supervised in their manufacture by men whose lifetimes have been spent not only in supplying your standard ink requirements, but also in developing and improving your inks to their present high standard.

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Tel. Prospect 7296

**SAN FRANCISCO**  
345 Battery St.  
Tel. Garfield 5834

**NEW ORLEANS**  
518 Natchez St.  
Tel. Main 4421

## Technical News

(from page 37)

manufacture advances to the point where quality offset printing can be produced at speeds considerably in excess of 5,000 i. p. h. Most lithographers can now make plates by one method or another which will stand up for the length of run required of them. This is merely another way of saying that runs of more than 200,000 are not common in this country.

Getting back to the Aller Patent, the claim made is extremely broad. No mention is made of the method by which the plate described shall be produced but it is merely described as being made up of two metals, the non-printing parts being *ungrained* and formed of stainless steel or other chromium alloys. Stainless steel is being used in this country for litho work but it has always been considered necessary to use a grain in order to carry water. If no grain is necessary on a stainless steel or chromium surface, it may be that the use of such surfaces will make it easier to print the fine-screen halftones which are being used more and more.

Although the claims made for the Aller Process are broad enough to cover the situation, whether the printing metal is above or below the surface of the non-printing metal, the patent reads to give the impression that the copper printing dot should lie on the surface of the chromium or stainless steel. In this position it is exposed to any friction which the press might impose and it would seem to be more desirable to have the printing dot slightly below the surface as is the case when deep etch plates are used. The trouble probably lies in the fact that it is extremely difficult to etch either chromium or stainless steel and it is doubtful if any reagent could be found which would etch chromium without destroying the resist.

### Lithos Feature Kodachrome

The growing use of Kodachrome for high class calendar production was featured at the convention and fair of the Advertising Specialty National Association in Chicago last month. Goes Lithographing Co., Chicago, included three Kodachrome reproductions of famous paintings in their new 1942

line of forty-eight six-color subjects released for the first time at this meeting. Arthur Goes, company president, his son, Arthur Goes, Jr., and Roy Nelson, sales manager, directed promotional work and explained the "Sales Kit" provided agents for their products.

Joseph Hoover & Sons, Philadelphia, displayed striking Kodachromes in their general line of six-color lithographed calendars, with President Joseph Hoover in personal charge. Skinner-Kennedy Stationery Co., St. Louis, had thirty-four new lithographed calendar designs for 1942 on display, under the direction of F. S. Elliott, Jr., sales manager. Brown & Bigelow, St. Paul, had an extensive calendar display with Paul Gerlach, Chicago manager of their sales division, the Bigelow Press, in charge. Calendars in Kodachrome and color gravure were shown.

New England Calendar Co., Boston, Mass., used historical scenes, famous American statesmen and other patriotic subjects for their lithographed pictures. Murry E. Sholkin, sales manager, supervised the exhibit. Standard Advertising & Printing Co., Fort Scott, Kans., exhibited calendars, sympathy cards, memory books, undertakers' supplies and other items, produced by both letterpress and offset. L. W. Ellsworth, proprietor, I. E. Pagett, general manager, and Garnett E. Saunders, art director, came from Fort Scott for the show.

Hangers and household calendars, produced in their St. Paul plant and finished in Chicago, were shown by Bagley & St. Clair, Chicago, under the direction of Frank Spikins, president. U. S. Wall Pocket Co., New York, displayed lithographed advertising novelties with H. Davidson in charge. Other exhibitors of lithographed calendars included Newman-Rudolph Litho Co., and Baumgarth-Scheldrup Co., Chicago. Borin Art Products Corp., Cicero, Ill., exhibited art subjects lithographed for them by Niagara Litho Co., Buffalo, N. Y., and Columbian Lithographing Co., Chicago. Silk screen work produced at Cicero was also shown. W. F. Hofert, vice-president, was in charge.

### Bindery Issues Buying Guide

Barrett Bindery Co., Chicago, has just prepared a 42-page illustrated book giving technical data and general information about its die cutting and finishing operations for the lithographic trade. Sections are devoted to steel rule die cutting, hollow die cutting, display board mounting, game board manufacture, paraffin coating, eye-letting, and embossing. Copies are available.

### Adds the Little Chief

The ATF-Webendorfer Little Chief 20, a new 14 x 20 sheet-fed offset press, has been added to American Type Founders' line of offset equipment, it was announced this month. While the press has been previously shown and has been on test in a number of lithographic establishments, it is now in full production and is available for inspection at most of ATF's branch offices. The press offers a maximum printing area of 13½ x 19 inches and will handle anything, it is said, from onion skin to 4-ply stock. It will deliver at speeds up to 5,000 impressions an hour.

### Introduces "Kromekote Cover"

Sample menu covers made of "Kromekote Cover," printed in red and black, are now being distributed by Champion Paper and Fibre Co., Hamilton, Ohio, manufacturers of the stock. It is a high finish cover stock especially designed for use as menu and catalog covers.

### New Knox Printing Guide

A "Standard Guide to Planned Printing," for the use of buyers of printing and those who prepare material for printing, has been published by Frank M. Knox Co., New York. The guide contains in manual form information for planning printed matter which can be produced, it is said, without involving waste or inefficient handling. Included are sections on folders, booklets, paper stock requirements, envelope enclosures, cover stock, press equipment, etc.

### New "Fra-Opaque" Folder

A new broadside, lithographed in patriotic red and blue and entitled "Fra-Opaque Is Elected," is now being distributed by Fraser Industries, Inc., New York, paper manufacturers. The folder is a specimen of substance 28 Vellum Finish "Fra-Opaque."

### Paul E. Roscher Dies

Paul E. Roscher, prominent in activities of Printers Supplymen's Guild, Chicago, died last month. He was general manager of Hyre Electric Co., dealers in electrical equipment for printers, and at the time of his death a member of the Supplymen's Guild executive committee.

## Color or Black & White

### **HAMMER DRY PLATES and FILM**

are the choice of discriminating  
craftsmen for negatives and  
positives.

**HAMMER PANCHROMATIC PLATES A.H.  
SOFT GRADATION  
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CONTRAST**

**HAMMER SUPER PROCESS PLATES A.H.**

**HAMMER OFFSET PLATES A.H.  
SPECIAL ORTHO  
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**HAMMER DRY PLATE & FILM CO.**  
OHIO AND MIAMI ST. LOUIS, MO.

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Quality

## *Season's Greetings*

Another year is closing in  
on us and our Friendship  
and friendly business re-  
lations have grown to  
greater heights.

May we wish for you and  
yours a Merry Christmas  
and a Happy New Year  
filled with good luck and  
cheer throughout the  
coming year.

*"Over half  
a Century  
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Send for  
Price List  
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Sample Books



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OFFSET BLACKS · COLORS · SAFETY INKS · ROLLERS  
MOLLETON · DAMPER COVERS · RUBBER BLANKETS



## Point-of-Purchase Advertising

(from page 26)

use displays of intricate construction. Small displays with simple copy and strong, direct illustration are wanted in these stores. Small displays which actually hold one or more products are also popular. Similarly, in stores where a large variety of small articles are sold, counter racks and baskets and even floor stands from which products may be displayed and sold are in demand.

In busy sections where large numbers of people pass a display window every day, static displays are not as successful as other types. Because there is a greater press of traffic, something more unusual is needed to gain the attention of the passersby. A display with motion or light would therefore be an excellent piece for this type of window. A display of greater height would also attract more attention than one of medium height because persons passing at the far end of the walk would be able to see the display, even with other persons passing between.

Construction naturally depends upon the type of display, but inversely the type of display many times depends upon the construction. First and foremost, construction must be simple—this is imperative. One of the most frequent complaints made by dealers is that they have difficulty in putting together complicated constructions. This is one reason why many prefer professional installations. At the same time, this type of display is welcomed because it is usually interesting and creates attention. Displays today are very much advanced from what they were years ago in point of construction, but because of physical limitations, it still is not possible to carry out every idea exactly. In these instances, the type of display is sometimes dependent upon limitations in construction. These cases, however, are few. There are not many problems which cannot be overcome by the expert construction men today in the business.

**T**HIS development in the mechanics of point-of-purchase advertising has taken place mostly in the last ten years or so. Until only a few years ago, this medium had been considered mainly as a necessary aid to the dealer in help-

ing him make sales. It had been thought of only as a selling medium, but not so much as an advertising medium. The advertising agencies, and even the advertisers, consequently had not given it the attention it deserved and not much research in order to further development had been instituted. It was regarded by the advertiser as so much printing or lithography to be bought.

By far the greatest amount of this material was lithographed. Therefore, this business mainly passed through the hands of lithographers directly from the advertiser. Today, practically all point-of-purchase advertising material is supplied by the lithographers directly to the advertiser. The lithographer has become expert in the planning and execution of this type of advertising. There are many lithographers today who individually have caused research to be made, primarily for their own purposes and who are, in every sense, experts on point-of-purchase advertising.

With the growth in use of this medium, volume in lithographic work has likewise grown and will undoubtedly continue to grow so long as the lithographer maintains his pre-eminence in this field.

## Offset Paper at Work

(from page 35)

I know of no exact experiments having been made recently to determine how much variation between paper temperature and air temperature can be tolerated before serious trouble occurs, but there is no doubt that trouble can be minimized if the paper is brought into the storehouse or the pressroom long enough before it is used to become acclimated. Until that time it should remain in its original wrappers, so that the condensation which takes place upon them cannot penetrate into the sheets and cause wavy edges, the bane of offset printers.

## Offset Press Operation

(from page 37)

the plate surface, it is best to adjust both adjustments to the half way mark, rather than have the screws opened up wide and then cut down the ratchet to one notch. On an all-over full plate, such as label backgrounds, both adjustments may be opened up full with-

out going to the extreme on either. The one type of plate that requires that most of the work should be done by the screws is one on which one side of the plate is practically solid with work tapering down in area to almost nothing on the other side.

Probably one of the greatest tests of a pressman's skill is the maintenance of a delicate balance between ink and water. It is easy to say, "Run the ink in concentrated form, and run it spare." Under ideal conditions this is true. But the difficulty of running it spare is due to the effect the water has on brilliant printing. If the grain is shallow or the plate requires a little excess water for any other reason, the ink cannot be cut down to its best printing point. The only course to follow is to regulate the water to a point that will just keep the plate clean, and then run the ink where it gives the most brilliant results and still pulls out sharp.

This course unfortunately cannot always be followed due to certain inaccuracies in the art work or in making the plate. There are times when the artist demands that the pressman run a certain form fuller or sparer than he, the pressman, knows to be safe. If the plate is light and has to be run up beyond a safe limit, and if the ink is as strong in tone as it can be made, then there is nothing to do but to run it up or make the plate over. If the artist says to run it down beyond the safe limit, it is better to reduce the strength of the ink and run a normal amount instead.

## Typo Arts Holds Show

Fine printing designs created by members of the Chicago Society of Typographic Arts were displayed at the new galleries of Art Center, Chicago, last month. Included were books and booklets, catalogs, letterheads, commercial design layouts and other materials by many noted artists. Ludlow Typograph Company displayed one of its typesetting machines. Visitors had an opportunity to inspect the newly re-organized Visual Art files and Graphic Arts Room where samples of work done by commercial artists are available for examination by art buyers, and where lithographers, printers, photo-engravers, and others maintain displays of their products.

# I



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Built into each KIMBLE  
Saves many a sob.

*Motors by* **KIMBLE**  
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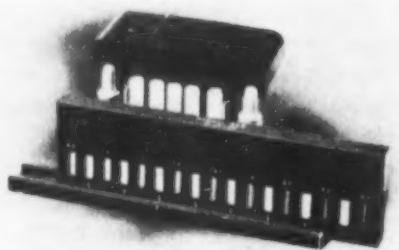
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COMPARATORS*



for  
Control  
of  
FOUNTAIN  
SOLUTIONS

*Simple - Rapid - Accurate*

Determinations are made by moving the color standard slide in front of the test sample until a color match is obtained and reading the pH from the values engraved on the slide.

All Color Standards carry an *Unlimited Guarantee*.

For zinc plates fountain solutions should have a pH of 3.8 and a bromphenol blue (pH 3.0—4.6) slide comparator is required. For aluminum plates the pH should be 4.6 and a bromcresol green (pH 3.8—5.4) comparator is required. The price of either set is \$15.00. In a wooden carrying case \$20.00. F.O.B. Baltimore.

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Therefore we urge every lithographer  
to send for samples of —

**OKAY DEVELOPING INK**

A time tested material with every quality a developing ink should have — also made for deep etch plates.

**OKAY OPAQUE**

The finest negative opaque on the market — consistency and satisfaction assured.

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A recent development, a water soluble opaque for masking on celluloid sheets; smooth flowing and non-sticking in humid weather.

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An opaque for paper films and glass, will not chip or crack, and dries rapidly.

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247 S. THIRD ST., PHILADELPHIA, PA.

or their agents. Also manufacturers of high-grade photo-offset inks, fine printing inks, compounds, etc.

### Is Offset Practical, etc?

(from page 20)

small-town newspaper, both in original installation and in production.

6. Permits extensive use of local art work and hand lettering.
7. Facilitates the establishment of self-contained units where the whole production process can be carried out under one roof.

### Disadvantages of Offset for Newspaper Production:

1. Requires greater skill than letterpress production.
2. Supply of trained operatives is limited.
3. Process is too slow for multiple-edition daily newspapers.

### What Offset Newspaper Publishers Want:

1. A composing typewriter or some other form of composing machine that will eliminate metal casting, but will produce reading matter acceptable in appearance.

Lithography has today, of course, made hardly a dent in the business of newspaper publishing, even in the smaller towns. At the best of reckoning, there are not more than 25 or 30 offset newspapers now being produced, whereas, according to the best authorities, there are more than 1,100 dailies and 9,500 weekly newspapers currently being issued throughout the country, in cities and towns of 10,000 population or less. And it is probable that the adoption of lithography by the Fourth Estate will be slow and gradual. Whatever the advantages of the process may be, it is too much to expect that the successful newspaper with an established letterpress plant will scrap existing equipment in order to start afresh with a new and untried production method.

It does seem safe to say at this time, however, that lithography has a definite future in the newspaper field. The first to utilize it will undoubtedly be the newly established journals just breaking into the field and the heretofore unsuccessful periodicals that must find some new method of gaining and holding reader interest if they are to continue to exist. In the meantime, enough offset periodicals are now in production to serve as a testing ground for the process and to help in ironing out the

difficulties which inevitably attend the application of any process to a new production problem. Newspaper publishers, particularly in the smaller communities, may well be overlooking a bet unless they keep themselves informed as to lithography and its possibilities.

### Mechanics of Color Separation

(from page 23)

result, the exposure is unduly prolonged and current consumption runs high. Current fluctuation during exposures also can materially affect the color temperature of the arc lights and result in an unbalanced set of separations. The heat generated by the arcs may cause the transparency to buckle or change its size, thus creating register difficulty.

To circumvent the aforementioned difficulties it is well worthwhile to investigate the use of fluorescent tubes for the illumination of color transparencies. Eastman Kodak described a fluorescent illuminating box in MODERN LITHOGRAPHY, October 1939, pages 22, 23, 24,

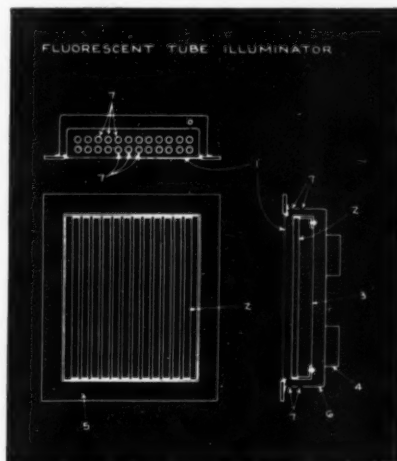


Fig. 10

25 and 36. Figures 10, 11 and 12 are reprinted to show the general construction of such a unit. The advantages of fluorescent lighting are cool operation, fairly stable color output, high actinic value and low current consumption. The illuminator is intended chiefly for continuous tone separations although "direct" separations are being made with extended exposures. The illuminator may, however, be used for exposing halftone positives from the continuous tone negatives without undue increase in exposure over arc-lights.

Each of the methods outlined has particular advantages not shared by

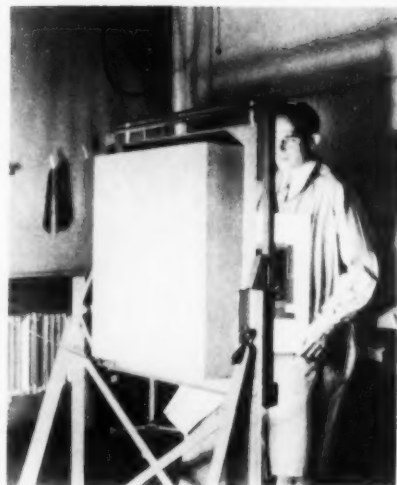


Fig. 11

the others. While it is impossible to say which method is the best as regards quality, the size of the color film and the results desired will indicate which



Fig. 12

system is desirable regarding speed and economy. The shop doing only an occasional color job may desire to use existing methods. On the other hand, the plant doing a great deal of color work from transparencies will find it expedient to consider the various methods outlined. The construction or purchase of equipment devoted exclusively to transparency work will prove a worthwhile investment.

### Litho Forms Reorganizes

The National Litho Forms Corp., Cleveland, is re-organized and re-incorporated under new ownership, with Ira Von Briesen as president and C. J. Squire as secretary-treasurer. Offices are moved to 4503 Euclid Ave.



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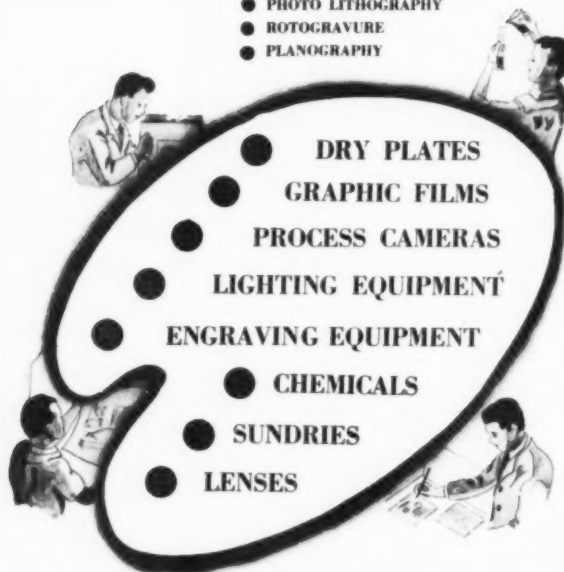
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# LITHOGRAPHIC ABSTRACTS

Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents in coin or U. S. stamps. Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio.

## Photography and Color Correction

**Progress in Color.** Anonymous. *British Journal of Photography*, 87, 1940, No. 4181, pp. 301-2; No. 4182, pp. 312-13; No. 4183, pp. 323-4; No. 4185, pp. 351-2; No. 4186, pp. 363-4; No. 4188, pp. 387-8; No. 4189, pp. 398-9; No. 4191, pp. 419-20; No. 4192, pp. 433-5; No. 4193, pp. 449-50; No. 4194, pp. 459-61. In this series of articles on developments in color photography, recent British patents on the following subjects are discussed in detail: (1) projection in register of separate color separation positives, (2) broken-tone color separation, (3) the lenticular system, and (4) reversal processes using integral multilayer material. In regard to the last mentioned processes, methods involving differential re-exposure using intermediate screening layers, and the use of color generators or dye-stuffs which are fast to diffusion are described.

**Highlight Halftone Negatives. Part III.** J. S. Mertle. *Graphic Arts Monthly*, 12, No. 10, Oct. 1940, pp. 44, 46, 48, 50, 52, 54. The use of special half-tone screens (odd-ruled, colored, and variable opacity) for the production of highlight effects in half-tone images did not prove popular. Highlighting is also accomplished by means of masks of two different types, photographic images and those consisting either of red or properly opaqued transparent celluloid. Various processes using the above types of masks, including the fluorographic process of W. S. Marx, Jr., are described.

A special transparency holder designed by Ellis Bassist enables accurate and easy registration of photographic masks.

**Commercial Photography. Dark-Room Technique.** George L. Wakefield. *Process Engravers' Monthly*, 47, No. 562, Oct. 1940, pp. 336-7. Since most photographic work is now done on panchromatic materials, darkroom illumination is very important. The walls should be white, and the safelight recommended by the makers of the sensitive material should be used. The time and temperature system of development is excellent for a large quantity of work. The nature of the subjects should be considered and development times modified to keep the density range of the negatives as nearly constant as possible. Factorial development, fairly successful when exposures are reasonably correct, compensates a little for varying subject contrast, but is not suitable for a large quantity of work. Development by inspection is invaluable for tricky subjects but is dependent upon the experience of the operator. In both factorial and inspection development, desensitizing is advisable.

**Control for Photographic Operations.** H. Ayrault. *Photo-Revue*, 51, pp. 177-80, 194-7, 210-12, 227-30, 241-5 (1939). The application of sensitometric control to the processing of both negatives and prints by the amateur is described. The standardization of density, the construction of a densitometer, the development to definite gamma values, the exposure and exposure meters, and reduction and intensification are discussed. (*Chemical Abstracts*, 34, No. 19, Oct. 10, 1940, p. 6535.)

**Process Practice (No. 10).** Frank H. Smith, *Process Engravers' Monthly*, 47, No. 562, Oct. 1940, pp. 334-5. For the general run of fairly good copy, the "one-stop" system works quite well, but the method is hardly flexible enough for flat-toned copy and for bright sub-

jects having small "jumpy" highlights. The multiple-stop method, using a highlight, general, and flash exposure, is most flexible and can best cope with poor copy. A very small flashing stop should not be used as it produces square-shaped shadow dots. For very flat subjects, a larger highlight stop than usual can be used. When making alterations in stop size, exposure, and screen distance, a given percentage change should be made, so that the difference in the result is always in about the same proportion.

## Planographic Printing Surfaces and Plate Preparation

**Planographic Printing Plate.** Claes B. Aller. *U. S. Patent* No. 22,14,950 (Sept. 17, 1940). Planographic printing plate for offset printing, and method of producing it. Made of stainless steel, chromium, or chromium alloys, the plate is characterized in that printing may be temporarily discontinued without the necessity of coating the picture to prevent ink-receiving and ink-refusing areas of the plate becoming altered by action of air. (*Printing Equipment Engineer*, 61, No. 1, Oct. 1940, p. 40.)

**Deep Etched Plate Troubles and Their Cure.** I. H. Sayre. *Midwestern Lithographer*, 5, No. 6, Oct. 1940, pp. 5-6. Breaks or holes in the coating may be caused by bubbles, dust specks, or undissolved dye particles in the coating solution, or by an imperfectly filtered solution. Over-exposure gives a pale-looking print, while under-exposure or stained positives result in lack of shadow detail and scumming. Development must completely remove all coating in the image areas, and the developing and etching solutions must in turn be thoroughly washed off, or a blind plate will result. The developing ink must be worked well into the image areas. The coating should be thoroughly removed from the grain, but too much

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In compiling the Lithographer's Manual we gathered material from every source possible. In the new issue we included on pages 212 and 213 editorial material headed "Questions Regarding Deep-Etch" the original source of which was an address delivered before the Litho Club of Philadelphia by Mr. Arthur Glaeser of The Senefelder Company, Inc.

We should have carried a line under the title of the article crediting Mr. Glaeser of the Senefelder Company, Inc., for the material carried.

The compiler, Walter E. Soderstrom and the Waltwin Publishing Company, Inc., hereby express regret and hereby apologize for inadvertently failing to grant credit for this material to Mr. Arthur Glaeser of the Senefelder Company.

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Walter E. Soderstrom, President



scrubbing with a bristle brush will deprive the image of ink and thus weaken it.

**Offset Technique.** John Stark. *Inland Printer*, 106, No. 1, Oct. 1940, pp. 59-62. Causes and remedies are suggested for the following difficulties: (1) loss of affinity or ink-receptiveness of an albumin plate; (2) a pressman's allergy supposedly to gasoline fumes, causing asthma; (3) irregular patterns of misshapen dots on albumin plates; (4) the development of a slick glossy surface on zinc plates, and (5) certain troubles encountered in operating a Multilith 1200 press.

**Albumen Printing Technique.** M. Leeden. *Modern Lithographer and Offset Printer*, 36, No. 9, Sept. 1940, pp. 114, 122. The addition of excess ammonia to the sensitizing solution is merely wasteful. Change in relative humidity causes variation in the sensitiveness of the plate coating. The effect of the heat of the arc lamp on relative humidity during exposure must be taken into account. A sensitive solution not more than three days old should be used, the plate should not be kept wet for more than 1-2 minutes before coating, and a constant whirler speed and coating technique should be adhered to. To insure perfect contact in the printing frame, there should be no lumps in the blocking-out paint used, and tinfoil should be used for masking.

**Technical News and Literature.** Kenneth W. Martin. *MODERN LITHOGRAPHY*, 8, No. 10, Oct. 1940, pp. 46-7. A properly made high-etch plate will run for millions of impressions if given reasonable care. The production of this type of plate is described in detail, with special attention given to the etching operation, upon which the success or failure of the plate depends.

## Equipment and Materials

**Apparatus for Spraying Printed Sheets.** Arthur Buttner (to Schnellpressenfabrik A.-G. Heidelberg). *U. S. Patent* No. 2,215,389. Apparatus for spraying printed sheets with offset-preventing agent, characterized by a novel arrangement whereby individual, successive amounts of compressed air

are produced for the spraying action in successive time periods corresponding with the succession in which the freshly printed sheets leave the printing press. (*Printing Equipment Engineer*, 61, No. 1, Oct. 1940, p. 42.)

## Paper and Ink

**Offset Paper at Work.** William Bond Wheelwright. *MODERN LITHOGRAPHY*, 8, No. 10, Oct. 1940, pp. 43, 55. A table shows the required minimum folding strength specifications for various grades of paper bought by the government. These are in general lower than the folding strength of many commercial brands. Strength deficiency of paper in books has caused a steady increase in library operating costs. As offset demands paper sufficiently cohesive to resist picking, offset papers tend to be stronger and more durable than those for letterpress.

**Domestic Sources of Drying Oils.** Dale V. Stingley. *American Ink Maker*, 18, No. 10, Oct. 1940, pp. 27-9, 45. In order to utilize cheap domestic drying oils in place of expensive imported oils, poor drying oils must be converted to good drying oils by chemical processing. As the physical and chemical properties of fats and oils depend upon the kinds and percentages of fatty acids present, and upon the way these are combined in the glyceride molecule, a classification is suggested in which oils are divided into seven classes, based on fatty acid composition. The removal of saturated acids from semi-drying oils and the subsequent improvement in drying qualities can be accomplished by a new fractional distillation process. The chemical and physical constants of several synthetic drying oils applicable to printing ink formulation are given.

**Ink and Paper.** George Cramer. *American Ink Maker*, 18, No. 10, Oct. 1940, pp. 31-3, 45. A discussion of the various problems met by the ink-maker in the formulation of inks for printing on newsprint, machine finished or supercalendered papers, machine coated papers, coated stocks, bond and parchment papers, glassine, and various kinds of boards. There are many types of coated stocks, meeting the requirements of the different printing processes and

of metallic ink printing, gloss ink printing, and overprint varnishing. These types and many others (dull coated, flint coated, and lacquer coated stocks) require specialized ink formulation.

## Trade Tricks in Using Gloss Ink.

D. M. MacMaster. *Inland Printer*, 106, No. 1, Oct. 1940, pp. 50-1. The use of gloss inks is the only single-operation method of producing glossy prints, and consequently is least expensive. As gloss inks dry rapidly by oxidation on rollers as well as on paper, they become more and more tacky. A paper of high cohesion must be used to withstand the pull of the tacky ink. A smooth paper surface on which the varnish will stand in an unbroken film is also necessary. A paper meeting these qualifications will not produce high quality half-tones, so a compromise must be accepted. A kiss impression, an anti-offset spray, and paper with the grain running around the cylinder are best, and no heat should be used.

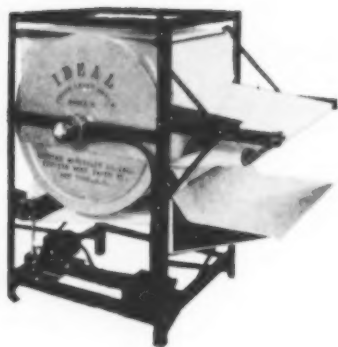
## General

### Pressure and the Pressman.

Charles F. Geese. *National Lithographer*, 47, No. 10, Oct. 1940, p. 38. Tests have shown that different pressmen obtained from 3000 to 18,000 impressions from albumin plates made by the same platemaker. The long runs were made by pressmen who were most careful about pressure, fountain, and other settings. Proper working knowledge lengthens albumin plate life.

### The Technique of Color Printing by Lithography. (Book.)

Thomas E. Griffiths. Crosby Lockwood & Son, Ltd., 1940, 12s.6d. Chart, 5s. This new book on color lithography is described as being "a concise manual of drawn lithography." The technique of chalking, splatter, scratch work, etc., is explained. Chromo-lithography and the reproduction of oil paintings are discussed, and ways of combining the advantages of drawn work with photolithography are shown. A series of color plates, obtainable separately from the book under the title of "Lithographic Printing Color Demonstration Chart," shows overprinted effects in three strengths, using a limited range of standard colors. (*Modern Lithographer*



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and *Offset Printer*, 36, No. 9, Sept. 1940, p. 116.)

**Dampening Hints.** Oscar Diehl. *Lithographers' Journal*, 25, No. 7, Oct. 1940, p. 286. Trouble caused by ink accumulating on the edges of the plate can be remedied by: (1) cutting the blanket packing short at each end; (2) putting leather or fiber washers on the ends of the dampeners under the molleton, or (3) attaching over each end of the water ductor an oil cup filled with fountain solution and regulated to drip as needed. pH control of fountain solution is necessitated by variation in water supply. White etches used in excess rot dampener covers, cause ink emulsification, and retard ink drying.

**What Price Organization?** W. N. Misuraca. *National Lithographer*, 47, No. 10, Oct. 1940, p. 30. An operator's ability will show up to best advantage in a plant where equipment is kept in excellent condition, where materials are the best available, and where production details are carefully controlled. Negatives or positives must have maximum density, clear highlights, and no halation. The application of ammonia in the development of albumin plates is very helpful, but the amount used and time of action should be carefully controlled. To clean the plate before coating, scrubbing with a strong solution of lye followed by mild hydrochloric acid is recommended.

**Development of Offset Lithography. VIII. Register Accuracy: Systems for High-Speed Machines. "Inker."** *Modern Lithographer and Offset Printer*, 36, No. 9, Sept. 1940, pp. 111, 118. Increase in speed of offset presses has reduced the proportion of time allowed for sheet registration in feeding. Two methods of overcoming this defect are described. As the time allowed for ink recovery is also cut down, less latitude in ink and water settings is permissible. The newest types of offset presses require the best printing stocks, ideal conditions, and skilled craftsmen.

**Offset Press Operation.** C. W. Latham. *MODERN LITHOGRAPHY*, 8, No. 10, Oct. 1940, pp. 45, 55. Since

heavy-bodied varnishes dry faster, the less the ink is thinned or doped the better it will dry. Ink thinning should become a matter of calculation based on the absorption number of the paper to be used. The color of an ink can be reduced without reducing the body by using a full-bodied lighter tone ink instead of laketine. The properties of lead, manganese, and cobalt driers are discussed. When adding drier, the pigment in the ink, length of run, number of colors, temperature, and humidity must be considered.

**Color Plates Are Copied by Offset.** Anonymous. *Inland Printer*, 106, No. 1, Oct. 1940, p. 55. Letterpress color engravings can be reproduced by offset with speed and economy. Two methods are mentioned: (1) Transparent impressions are made from letterpress color etchings, one for each of the color plates. These proofs serve as positives for making deep-etch plates if same size is desired, or can be reduced or enlarged in the camera. (2) In the Napconversion process, no details of which are given, original color plates are used for making positives, which can be used same size, enlarged, or reduced.

## Miscellaneous

**Printing Year Book and Almanac.** 1940-41. (Book.) Charles C. Walden, Jr., Editor. Walden, Sons & Mott, Inc., 41 Park Row, New York, New York. A useful reference book containing sections on general information and statistics about the printing industry, legal information of interest to printers, management, production and technical information, paper, estimating, new equipment and supplies, new type faces, and brand names used in the graphic arts. An ink trouble chart, lists of sales and production booklets which can be obtained by the use of coupons included in the volume, paper tables, and a buyers' guide are of value.

**Photo-Gelatin Printing.** Henry Honus and J. L. Roser. *Printing Equipment Engineer*, 61, No. 1, Oct. 1940, p. 11. In the photo-gelatin process a finely grained aluminum plate is coated with bichromated gelatin, exposed under a continuous-tone negative, and developed in a tank of glycerin and water.

The glycerin bath causes a swelling and reticulation of the gelatin in the non-printing areas, leaving the printing areas recessed to about .006 inch. A direct litho press with the dampening system removed highly concentrated inks, and a highly calendered paper stock are used. A pressroom humidity of 80-85 per cent is necessary, as the ink-repellent, glycerin soaked, non-printing areas of the plate must obtain moisture from the air.

**Coating Lenses.** A. F. Turner. *Photo Technique*, 2, No. 10, Oct. 1940, pp. 48-53. A discussion of the application of transmission films to glass surfaces to reduce reflection and thus increase light transmission. There are three methods of obtaining the surface film: (1) by chemical treatment, (2) by successively applying monomolecular layers of certain metallic soaps, and (3) by thermally evaporating a salt, generally a fluoride, and condensing the vapor on the optical surface, in a vacuum. A transmission film must be carefully controlled as to thickness, and must have a refractive index as nearly as possible equal to the square root of the index of the glass. As the reflectance of the filmed surface is at a minimum for only one wave-length of the spectrum, the light transmitted by the coated lens will be somewhat tinted. A uniform over all transmission can be secured, however, by staggering positions of maximum transmission from surface to surface. The transmission of a coated plate decreases as the angle of incidence is increased. The advantage derived from the application of transmission films to a lens will depend on the number of air-to-glass surfaces to be treated.

## Seeks Plate and Paper Agency.

A firm in Cairo, Egypt, seeks the establishment of a purchase and agency arrangement for photographic paper and plates of American manufacture. Further information can be obtained from the Bureau of Foreign and Domestic Commerce, Washington, D. C., referring to trade opportunity No. 443.

Progressive Litho Co., St. Louis, has installed a new Lanston M-H 4 photo-composing machine. Another, of the M-H 2 type, went in at the Ross-Gould Co.'s St. Louis plant last month.



## "WHERE-TO-BUY-IT"

NOTE: This is a classified list of the companies which advertise regularly in MODERN LITHOGRAPHY. It will aid you in locating advertisements of equipment, materials or services in which you are particularly interested. Refer to the Advertiser's Index on page 65 for page numbers. *Say you saw it in Modern Lithography.*

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Norman-Willets Co.  
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Fuchs & Lang Mfg. Co., Div. General Printing Corp.  
International Printing Ink, Div. of Interchemical Corp.  
Litho Plate Graining Co. of America, Inc.  
Reliable Litho Plate Graining Co.  
The Senefelder Co., Inc.  
Litho Plate Grainers of Detroit  
Standard Litho Graining Co.

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Crescent Ink & Color Co. of Penna.  
Martin Driscoll & Co.  
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Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
Gaetjens, Berger & Wirth, Inc.  
International Printing Ink, Div. of Interchemical Corp.  
E. J. Kelly Ink Co.  
George H. Morrill Co., Div. General Printing Ink Corp.  
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Leiman Bros., Inc. (Vacuum Pumps)  
Underwood Elliott Fisher Co. (Typewriters)  
U. S. Finishing & Mfg. Co. (Die Cutting & Finishers)  
Jeffery White Studio (Color Service)

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Mid-States Gummed Paper Co.  
The Mead Corp.  
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Whiting-Plover Paper Co.

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G. Cramer Dry Plate Co. (Photo Dry Plates)  
Eastman Kodak Co.  
Hammer Dry Plate & Film Co.  
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American Type Founders Sales Corp.  
Artists Supply Co. (Opaque)  
California Ink Co., Inc.  
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Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
C. P. Goerz American Optical Co. (Lenses)  
Illinois Zinc Co. (Zinc Plates)  
William Korn, Inc. (Litho Crayon and Litho Crayon Paper Pencil Mfrs.)  
Lanston Monotype Machine Co.  
Litho Equipment & Supply Co.  
National Carbon Co., Inc. (Carbons)  
Norman-Willets Co.  
F. G. Okie, Inc. (Opagues—Developing Inks)  
Ren R. Perry  
Photo-Lith Sales  
Harold M. Pitman Co.  
Rutherford Machinery Co., Div. General Printing Ink Corp.  
The Senefelder Co., Inc.  
Simplex Specialty Co., Inc. (Film Dryers)  
E. T. Sullebarger Co.

### Plate Making Services

Graphic Arts Corp.  
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Swart-Reichel, Inc.

### Pressroom Equipment & Supplies

American Type Founders Sales Corp. (Presses—Offset Spray Gun, etc.)  
Bingham Brothers Co. (Rollers, etc.)  
Sam'l Bingham's Son Mfg. Co. (Rollers)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
Godfrey Roller Co. (Dampening Rollers)  
Harris-Seybold-Potter Co. (Presses)  
Ideal Roller & Mfg. Co. (Rollers)  
International Press Cleaners & Mfg. Co. (Press Cleaner)  
International Printing Ink, Div. of Interchemical Corp.  
Kimble Electric Co. (Motors)  
Harold M. Pitman Co.  
Rapid Roller Co. (Rollers and Blankets)  
The Rathbun & Bird Co., Inc. (Machinists)  
Roberts & Porter, Inc.  
Rutherford Machinery Co., Div. General Printing Ink Corp.  
The Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.  
Sinclair and Valentine Co. (Blankets)  
Steelitho Plate Corp. (Blanket Cleaner, Steel Plates, etc.)  
E. T. Sullebarger Co.  
W. A. Taylor & Co., Inc. (pH Control for Fountain Solutions)  
Vulcan Proofing Co. (Rollers and Blankets)

## CLASSIFIED

All classified advertisements will be charged for at the rate of ten cents per word. \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York. Closing date: 1st of month.

### For Sale:

One S 6 L-28x34 Harris Offset Press, Suction Feed, positive chain delivery. A-1 condition, operating at our plant. D'Arcy Printing & Litho. Corp., 132 White St., New York.

### Wanted:

Working partner for small plant. Have 17 x 22 press and platemaking equipment. Small investment required. Room 511, 270 Lafayette St., New York.

### For Sale:

Webendorfer MAC 17 x 22 Offset Press including 220 AC electrical equipment and wash-up machine. Practically new. Will sacrifice. Also 12 x 18 Webendorfer. Address Box #627.

### Offset Equipment For Sale:

Rutherford Offset Press—good condition. Type R. H. L. Serial #4636. Size 20" x 28"—3 phase, 60 cycle; 220 volt A. C. motor equipment. Address Box #628.

### Position Wanted:

Ten years experience photography and plate-making. Twenty-six. Married. Go anywhere. Address Box #610.

### Position Wanted:

Experienced photographer (line, half-tone, positives). Some color work, continuous tone and halftone. Direct color photography and general commercial work. Platemaker; albumen, deep etch, stripping and acid relief etching. Make all modern chemical controls.

Practical; supervisory and instructional ability. Address Box #631.

### Position Wanted:

Experienced Harris offset pressman on high-grade color work. Willing to work day or night. Prefer location in New York City. Address Box #632.

### Wants Agency:

Representative located in important Florida resort wants selling connection with lithographer specializing in items saleable to hotels and resort establishments. Address Box #633.

### Position Wanted:

Half-tone photographer. Some color work experience. Desire position in progressive plant. Address Box #611.

### General Information Concerning Inventions and Patents:

A reference book for inventors and manufacturers, also containing sections on the registration of trademarks and copyrights, and a "Schedule of Government and Attorneys' Fees"—sent free on request. Simply ask for "booklet" and "fee schedule." Lancaster, Allwine & Rommel, Registered, Patent and Trade-Mark Attorneys, 402 Bowen Building, Washington, D. C.

### Position Wanted:

Experienced lithograph pressman desires position in progressive plant. Accustomed to quality work on Webendorfer web and sheet-fed, also Harris presses. Married, steady worker, locate anywhere. Address Box #629.

### For Sale:

Webendorfer Offset Press, 12½ x 18½, recently factory rebuilt. A bargain at \$1100. Reply Box #635.

### Situation Wanted:

A competent cameraman and platemaker with supervisory experience would be interested in a position as working

foreman or in an entirely supervisory capacity. Address Box #636.

### For Sale:

Levy Circular Screen 31"—133 Line; Levy "A" gallery camera, Sweigard Vacuum Frames, lenses and arc lamps. Address Box #626.

### Are You Looking for an Executive Who Knows Modern Lithography?

You can be set on the right road to success by the adoption of practical production methods. Consultory service to buyers of large-volume advertising. Address E. E. 1305 Litho Division, 110 East 42nd St., New York City. Phone CAledonia 5-6800, Ext. 9.

### For Sale, Lettering Machine:

Rutherford, including 45 alphabet plates and layout projector. Practically new. Priced to go quickly. Motschall Co., 2941 East Warren Ave., Detroit.

### Position Wanted:

Qualified offset pressman on high-grade color, commercial, security work. Two-color or single. Can take charge. Will go anywhere. Address Box #630.

### For Sale:

22" x 28" all-metal Printing Frame including pump and motor—\$80; 24" Levy darkroom camera and iron pipe stand—\$435; 31" Levy camera; Macbeth 30 Amp., 220 Volt Printing Lamp—\$75. Singer Engineering Co., Complete Platemaking Equipment, 242 Mott St., New York City.

### Wanted:

One Model EL 22 x 34 Harris offset press. Address Box #634.

### Package Competition Opens

The tenth All-America Package Competition annually sponsored by *Modern Packaging* magazine has just been opened to entries from all designers, users and manufacturers of packages which reached the market during the calendar year of 1940. The current competition closes January 6, 1941, and prize winners will be announced in March. Last year over thirty thousand packages were submitted.

**MID-STATES LABEL DESIGN SEE-LEC-TOR**

**PRINTERS**

**Sell MORE LABELS**

by using Mid-States LABEL DESIGN SEE-LEC-TOR  
12 pages of ideas, 24 designs, 864 combinations

**TODAY—Write for your FREE copy of the Mid-States LABEL DESIGN SEE-LEC-TOR—or paste this ad on your letterhead.**

**MID-STATES GUMMED PAPER CO.**  
2515 S. Damen Ave., Chicago



**"ASCO"**  
(RED)  
**OPAQUE**  
**BLOCKS OUT**  
**WITH A**  
**SINGLE STROKE**  
Exceptional opacity permits close contact with print.

Ground extremely fine. Flows freely from brush, pen or airbrush. Leaves a thin smooth film that will not crack or chip off.

Test it yourself — Send for a sample.

**ARTISTS SUPPLY COMPANY**  
7610 Decker Ave. Cleveland, Ohio  
Ask your dealer for "Asco"

**FREE TRIAL OFFER**

**SUPREME OFFSET BLACK**

That's just what we mean — a chance to find out why hundreds prefer Supreme Offset Black. It's a clean working, hard drying rich black with an absolute minimum of "greasing" on the plate.

Write for information on our **FREE TRIAL OFFER**  
**E. J. KELLY COMPANY**  
1829 N. Pitcher St. Kalamazoo, Mich.

**KORN'S**

LITHOGRAPHIC CRAYONS  
" CRAYON PAPER PENCILS  
" STICK TUSCHE  
" LIQUID TUSCHE  
" RUBBING INK  
" TRANSFER INK  
AUTOGRAPHIC TRANSFER INK  
MUSIC - PLATE TRANSFER INK

Manufactured by  
**WM. KORN, INC.**  
260 WEST STREET NEW YORK

**RUSSELL** THE FASTEST SELLING  
FOLDERS IN AMERICA

**ERNEST**

THE WORLD'S GREATEST FOLDING MACHINE VALUES **BAUM**

615 Chestnut St.

Philadelphia, Pa.

**It's Easy To Make Money With Vari-Typer**

Compose copy for bulletins, sales manuals, booklets, catalogs, folders, etc. on the composing Type Writer . . . with changeable faces and spaces. Any competent typist after proper instruction can Vari-Type your work to photo offset copy with large savings and improved appearance.



Write Today for new specimen portfolio "How to Make Money with Vari-Typer" . . . with actual samples issued by organizations in the lithographic field.

**RALPH C. COXHEAD CORPORATION**  
Manufacturers of Vari-Typer  
333 Sixth Avenue New York, N. Y.

**THE RATHBUN & BIRD CO., Inc.**

IN BUSINESS SINCE 1896

**MACHINISTS**

For LITHOGRAPHERS — PRINTERS

PLANTS MOVED

REPAIR SERVICE

MACHINES RE-CONDITIONED

85 GRAND STREET

NEW YORK, N. Y.

Telephone: CAnal 6-4145-4146

**SAY** you saw it in  
**MODERN LITHOGRAPHY!**

• That way your inquiry addressed to our advertisers will assure your obtaining the precise information . . . best suited to meet your specific needs.



## Believes in Advertising

D. F. Keller & Co., Chicago, is convinced that advertising pays. The company has just issued a folder to promote its "Kellertone" deep etch offset service, and already, as a result, the concern's two Harris presses are being pushed to the limit, according to Howard Keller. About eighteen months ago the company installed its first offset press, along with other necessary equipment to supplement its letterpress facilities. A second and larger Harris press was soon found necessary. The folder was the first formal announcement of the deep etch service, Mr. Keller said. At the N. A. P. L. convention in Chicago last September the Keller folder was awarded second place in a contest involving advertising literature used by lithographers.

## Knapp Returns for Visit

Jerry Knapp, of Miami, Fla., former superintendent of Magill-Weinsheimer Co., Chicago, and widely known among lithographers there, returned for a visit with old friends in the Windy City last month. Following his retirement from active service several years ago, Mr. Knapp moved to Miami.

## Installs Conditioning System

Newman-Rudolph Co., Chicago litho concern, recently installed an eight-ton air conditioning system to serve executive and clerical offices in its plant at 844 West Jackson Boulevard, in that city.

## Goes to Hawaiian Islands

General Manager Al Weinstein, of Lehman Printing & Lithographing Company, San Francisco, has just started on a trip to the Hawaiian Islands. Mr. Weinstein expects to be away for one month. He will not combine business with pleasure.

## Addition to Radiant Face

Ludlow Typograph Co., Chicago, announces a new addition to its family of Radiant type faces—Radiant Bold. The new face is available in matrix form in sizes from 6 to 72 point and with round caps as alternate characters, it is announced. Specimen sheets showing the complete Radiant family are available on request.

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**... always out!**

**D**O YOUR salesmen worry because so many buyers are always "out" to them . . . especially new prospects? Nothing is more damaging to a salesman's morale . . . and his sales too. It's a cinch that he can't sell if he can't get in!

Make your firm and your products better known to the buyer *in advance* of your salesman's calls . . . help your salesman to get in to see the buyer . . . by the regular use of advertising space in representative trade publications.

Specifically if it's in the lithographic field where you want to make your firm and products better known, we suggest regular advertising in . . .

**MODERN LITHOGRAPHY**

254 WEST 31st STREET

NEW YORK

## Tale Ends

**T**HE following prose poem—shall we call it—was written and recorded on a Victor Record by David J. Finn, advertising and sales promotion manager of RCA. It was composed especially for the PAC Clinic held at Living Lithography in Philadelphia recently. When will someone get the bright idea of lithographing it, adding appropriate art work, and passing it around? There are a hundred ways it could be used effectively—as a scroll, calendar, poster, etc.

### THE VOICE OF LITHOGRAPHY

I am the voice of lithography, captured and preserved for all time on the flowing wax of a Victor record. As a merchandising tool, I have no equal, and like most good tools I am sharp: sharp in the clearness of my reproduction; sharp in my ability to penetrate the human mind; sharp enough to cut the bonds that tie men to outworn habits; and sharp enough to urge them towards new things.

Like most good tools, I am most skilled in skillful hands. My power is limited only by the ability of the user. I can whisper or shout. I open pocket-books and close prejudices. I build mighty structures of outworn things. I unlock the doors of prosperity and I bar the gates on depression. I speed sales; and slow criticism.

Like most good tools, I am a tool of many uses. My story shines in the eyes of the boy who stares at a circus poster; or the miser who fingers his securities; or the buyer who thumbs through catalogs; or the bride who reads of new treasures. I build homes; I furnish homes; and I take men away from their homes to seaside, lake or mountain. I sell the tangible and the intangible; I move men through reason and through emotion; I know all languages and all appeals.

My messages work for today and for tomorrow; and to those who use me wisely, I bring benefits long after my paper and my ink have returned to dust. I ring your cash register this afternoon—and contribute to the prosperity of your unborn grandchildren in some unborn tomorrow.

I move people, as well as merchandise; I destroy enmities and make friends. My range is greater than guns; my impact greater than shells. I kill dissension and give birth to agreement; I sow ideas and reap the harvest of profits.

I am yourself—your ideas, your wishes, your actions—magnified multi-million times.

**MODERN LITHOGRAPHY**



*When color counts . . . . count on*

# **REPROLITH**

**ORTHOCHROMATIC**

*and*

**ORTHOCHROMATIC THIN-BASE**

**Here's the film you need for colored copy . . the universal film for line and half-tone work, bringing an extra margin of quality, plus:**

- 1. High color sensitivity.**
- 2. Maximum contrast.**
- 3. Greatest resolving power.**
- 4. Extra latitude in development.**
- 5. Anti-halation coating.**
- 6. Safety base.**
- 7. Dependable uniformity.**

**FOR BEST RESULTS USE BEST MATERIALS**

**Agfa Ansco, Binghamton, N. Y. Made in U.S.A.**



9

# LITHOGRAPHERS ARE RIGHT WHEN THEY SAY: "HARRIS PRESSES *emphasize Quality*"

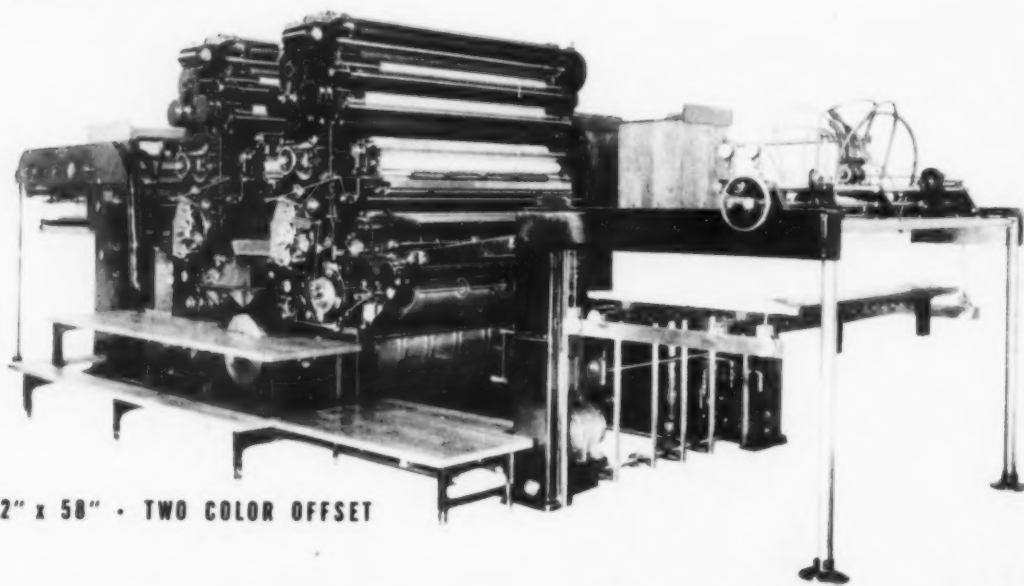
## LITHO CHEMICALS

• Through research, Harris has developed and standardized new chemicals for both deep etch and surface plate making processes. Full details upon request. Write us with reference to your lithographic problems.

•  
*Offset is the  
Modern Method*

• Harris Presses completely capture the skill of both creative planning and pressroom technique. They give both quality and faithful reproduction.

Precision-accuracy—plus dependable operation, are qualities built into Harris Presses. These qualities have always been kept foremost in the smallest, as well as the largest, Harris Presses.



LSK • 42" x 50" • TWO COLOR OFFSET

## HARRIS OFFSET PRESSES

HARRIS · SEYBOLD · POTTER · COMPANY ·

PIONEER BUILDERS OF SUCCESSFUL OFFSET PRESSES

General Offices: 4310 East 71st St., Cleveland, Ohio • Harris Sales Offices: New York, 330 West 43rd St. • Chicago, 343 So. Dearborn St. • Dayton, 819 Washington St. • Atlanta, 120 Spring St., N.W. • San Francisco, 420 Market St. • Harris-Seybold-Potter (Canada) Ltd., Toronto, Montreal • Factories: Cleveland, Dayton

